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Spending on Stability: The Relationship between Public Goods Provision and Regime Survival

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**SPENDING ON STABILITY:
THE RELATIONSHIP BETWEEN PUBLIC
GOODS PROVISION AND REGIME SURVIVAL**

by

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M.A. University of Colorado, 2008

B.A. Willamette University, 2005

**A thesis submitted to the
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of the requirement for the degree of**

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This thesis entitled
*Spending on Stability: The Relationship between
Public Goods Provision and Regime Survival*
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The final copy of this thesis has been examined by the signatories,
and we find that both the content and the form meets acceptable presentation standards
of scholarly work in the above mentioned discipline.

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Spending on Stability: The Relationship between Public Goods Provision and
Regime Survival

Thesis directed by Professor Steve Chan

Under what conditions can leaders use government spending to reduce the incidence of coup d'état and civil war? My dissertation addresses this question by considering when leaders might use public goods (public health, education, etc.) and private goods (graft, elite pacts, etc.) to co-opt potential revolutionaries and coup plotters. The dissertation begins with a formal model of the strategic environment in which leaders decide to allocate resources and challengers opt whether to fight the regime (Chapter 2). The model is solved for two sets of hypotheses that are tested with quantitative analyses in subsequent chapters. The third chapter turns to the *spending hypotheses* and shows that the leaders of weak regimes alter government spending to placate their most likely challengers. Weak exclusive regimes increase public goods provision while they are vulnerable to popular challenges, while weak inclusive regimes increase private goods provision to purchase the support of powerful elites. Chapter 4 evaluates the *stability hypotheses* to determine whether these shifts in spending successfully reduce the likelihood of coup and civil war. The findings are mixed. Weak and exclusive regimes can reduce the likelihood of civil conflict by more than 50% by increasing public goods provision from one standard deviation below to one standard deviation above the mean. However, increased private goods provision does not offer the same benefits for inclusive regimes. Chapter 5 uses a nested analysis case comparison of two transitional sub-Saharan democracies to better understand how weak inclusive governments can remain stable without shifting money from public goods provision toward elite interests.

The project results in three major contributions. First, governments shift public and private goods provision as they become more or less vulnerable to domestic extra-institutional challenges. Second, benevolence pays for the leaders of exclusive regimes. When these regimes are weak, there exists a very strong positive relationship between public goods provision and regime stability. Finally, the leaders of inclusive regimes need not decrease public goods provision to reduce the likelihood of coup and civil war, but some democratic institutions are more conducive to both social welfare *and* regime stability than others.

For Kelly

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INTRODUCTION

Twenty years ago, Robert Kaplan famously predicted that the fall of the Soviet Union would not bring “the end of history” declared by liberal optimists like Francis Fukuyama. Rather, he warned that the post-Cold War world would face innumerable challenges arising from the “coming anarchy” in underdeveloped regions.¹ The last two decades provided abundant support for Kaplan’s controversial claim. Between 1990 and 2006, states suffered approximately 200 coups and witnessed the onsets of 60 major civil wars. Such events occurred in every region and afflicted more than one third of the states in the international system.² These destabilizing coups and civil wars generated the anarchy Kaplan feared, and today the primary challenges to global peace and prosperity can be traced directly to the domestic conflicts that undermine weak regimes.

In Somalia, decades of insurgency weakened the ruling regime to the extent that it now maintains de facto control over only a few blocks of the capital city of Mogadishu. The government’s eroding capacity to enforce its sovereignty allows Somalia’s neighbors

¹ See Fukuyama, Francis. 1992. *The End of History and the Last Man*. New York: Free Press and Kaplan, Robert D. 1994. “The Coming Anarchy: How Scarcity, Crime, Overpopulation, Tribalism, and Disease are Rapidly Destroying the Social Fabric of our Planet.” *The Atlantic Monthly*, 273(2): 44-76.

² Lists of these events are provided in the Correlates of War *Intra-State War Data* (version 4.0) and Marshall, Monty G. and Donna Ramsey Marshall. 2010. *Coup d’État Events, 1946-2009 Codebook*. College Park, MD: Center for Systemic Peace. An event qualifies as an intrastate war in the Correlates of War data if it results in at least 1000 fatalities over the duration of the conflict and if there are organized non-state groups fighting against a government. See Sarkees, Meredith Reid and Frank Wayman. 2010. *Resort to War: 1816-2007*. New York: CQ Press.

to encroach upon its territorial waters and overuse its valuable fisheries. Desperate fishermen on the Somali coast must turn to piracy to support their families, and today the waters off of the Horn of Africa pose a considerable threat to goods passing through the Persian Gulf and Suez Canal. The inseparable link between Somali piracy and the political instability on shore is recognized by world leaders. In a recent address to the United Nations Security Council, Secretary-General Ban Ki-Moon cautioned, “let us always remember that reducing and eliminating piracy in the region means a sustained response, not only at sea, but also on land where piracy originates... the security of international navigation requires that we continue to support peace and stability in Somalia.”³

Elsewhere in Africa, prolonged civil war is endangering entire regions to conflict and creating the conditions necessary for the greatest crimes against humanity to occur in the twenty-first century. The ungoverned regions of the Democratic Republic of the Congo, weakened by a decade of conflict during “Africa’s World War,” provide safe havens for rebels threatening Rwanda, Uganda, Burundi, Sudan, and the Central African Republic.⁴ The unenforced borders in this corner of the Congo offer rebels sanctuary so that instability in any of these states has deleterious effects on the security of all of the states in the Great Lakes region.⁵ Furthermore, conflicts in this part of

³ Ki-Moon, Ban. 2010. “Eliminating Piracy Off Somalia’s Coast Requires not only Sustained Effort at Sea, but Continued Support for Country’s Peace, Stability Says Secretary-General.” New York: United Nations Department of Public Information, News and Media Division.

⁴ See Prunier, Gérard. 2009. *Africa’s World War: Congo, the Rwandan Genocide, and the Making of a Continental Catastrophe*. New York: Oxford University Press.

⁵ For general discussion of the problems stemming from “cross-border sanctuary,” see Fearon, James D. and David D. Laitin. 2003. “Ethnicity, Insurgency, and Civil War.” *American Political Science Review*, 97(1): 75-90 and Salehyan, Idean. 2007. “Transnational Rebels: Neighboring States as Sanctuary for Rebel Groups.” *World Politics*, 59(2): 217-242.

central Africa allow for mass rapes, genocides, and a substantial trade in illicit gemstones and precious metals.⁶

FIGURE 1.1: States Suffering Coup or Major Civil War, 1990 - 2006



Attempted Coup Data: Center for Systemic Peace (Marshall and Marshall, 2010)
Major Civil War Data: Correlates of War (Sarkees and Wayman, 2010)

The importance of weak and failing states to global security is perhaps most evident in central Asia, where civil war and coup are at the center of the global war on terror. Crippled by conflict, states like Afghanistan and Pakistan lack the internal sovereignty they need to defeat the terrorist networks operating on their frontiers. It is evident that fighting terrorism requires investment in political development so that these states can uphold their territorial sovereignty over the long term. This problem is compounded by the high prevalence of drug cultivators who export opium and fund

⁶ For an account of the sexual violence in central Africa, see Gettleman, Jeffrey. 2007. "Rape Epidemic Raises Trauma of Congo War." *New York Times*. 7 October 2007, A1. For a more general overview of this phenomenon see Wood, Elisabeth Jean. 2009. "Armed Groups and Sexual Violence: When is Wartime Rape Rare?" *Politics and Society*, 37(1): 131-161.

terrorist activities. They also profit from anarchy and could not operate under more capable governments.⁷

Even nuclear war, the gravest of threats to world peace, is tied closely to regime stability in weak states. Experts recognize that a nuclear exchange in south Asia is more likely to result from adverse regime change in Pakistan than it is from the international rivalry between Pakistan and India. Recent assassinations and the 2009 Taliban assault on the Pakistani “Pentagon” only escalate these fears.⁸ North Korea observers note that the country’s more reckless nuclear policies are responses to internal threats perceived by the ruling family. The tenuous relationship between Kim Jong Il’s family and viable challengers within the military is a better determinant of North Korean nuclear policy than its diplomatic exchanges with South Korea and other Pacific Rim states.⁹

Making progress against pirates, rebels, terrorists, and traffickers requires increased attention to the conditions that generate the anarchic environments that allow these problems to develop. Researchers must provide policy-makers with some strategies that can be used to strengthen weak regimes and reduce the incidence of the coups and civil wars that cause them to fail. This dissertation contributes to this research program by exploring an important link between regime stability and patterns

⁷ The link between failed governments and terrorism is discussed in Rotberg, Robert I. (Editor). 2003. *State Failure and State Weakness in a Time of Terror*. Washington: Brookings Institution Press. Also see: Rubin, Barnett R. 2000. “The Political Economy of War and Peace in Afghanistan.” *World Development*, 28(10): 1789-1803.

⁸ See Allison, Graham. 2004. “How to Stop Nuclear Terror.” *Foreign Affairs*, 83(1): 64-74 and Mowatt-Larssen, Rolf. 2009. “Nuclear Security in Pakistan: Reducing the Risks of Nuclear Terrorism.” *Arms Control Today*, 39 (July/August). For a dissenting opinion, see Khan, Feroz Hassan. 2009. “Nuclear Security in Pakistan: Separating Myth from Reality.” *Arms Control Today*, 39 (July/August).

⁹ Discussion of nuclear security in northeast Asia during the end of Kim Jong Il’s reign can be found in Byman, Daniel and Jennifer Lind. 2010. “Pyongyang’s Survival Strategy: Tools of Authoritarian Control in North Korea.” *International Security*, 35(1): 44-74.

of government spending. I find that under the right conditions, the leaders of weak states can greatly reduce the threat of civil conflict by strategically reallocating their resources toward the provision of public goods like health or private goods like special favors for military officials and other influential elites. This is the first comprehensive cross-national study of the conditions under which these short-term shifts in government spending can result in robust and significant decreases in coup and civil war initiation.

By exposing this important link between spending and stability, I provide policy-makers with a better understanding of how fiscal policy can be used to strengthen regimes that are especially vulnerable to coups and civil wars. This marks a valuable contribution to a literature that focuses overwhelmingly on the structural conditions that condemn states to war and cannot be changed by short-term policies. The leaders of weak states cannot quickly eliminate rough terrain, rid their countries of weapons from past wars, close divisive social cleavages, and bring closure to conflicts in neighboring countries. They can, however, implement short-term policies focused on building schools, increasing welfare programs, and cutting special deals with generals.

Literature Review: Weak Regimes and Domestic Challenges

Regime failure occurs when the political institutions of a state are replaced or drastically reformed.¹⁰ Unless regimes are highly personalized, as in some dictatorships,

¹⁰ Regime failure is sometimes also called state failure (see, for example, the work of the State Failure Task Force). Empirically, I measure regime failure using the dichotomous variable from the *Polity IV* data set. See Marshall, Monty G. and Keith Jaggers. 2002. *Polity IV Data Set*. [computer file: version p4v2002]. College Park, MD: Center for International

leadership changes do not necessarily cause regime failures. Most transfers of power in democratic systems, for example, do not result in major changes to political institutions or coincide with constitutional revisions. Regime failure can also occur without a change in leadership, as in cases where an incumbent is able to maintain power while political institutions change around her. Paul Biya's long leadership tenure in Cameroon provides one example of a dictator who survived the failure of his autocracy by defeating challengers in a multiparty democratic election. Cameroonian multiparty democracy has since regressed back to autocracy, so Biya has now persisted through multiple regime failures.¹¹

Failures generally result from domestic pressure on the ruling regime, and they fail via one of three mechanisms: *coup*, *civil war*, or *voluntary transition*.¹² As demonstrated by the example of the Biya regime above, the causes of voluntary transitions are inseparable from the causes of coup and civil war. Voluntary transitions occur when leaders face an imminent threat of these dangerous challenges to the regime. Thus, the determinants of coup and civil war also determine voluntary

Development and Conflict Management, University of Maryland. Regimes fail when they are replaced by force or when incumbents voluntarily reform political institutions in response to threats of force. They code a failure if the reforms are extreme enough to warrant a three-point change in the polity index score.

¹¹ For more on Biya, see Fomunyoh, Christopher. 2001. "Democratization in Fits and Starts." *Journal of Democracy*, 12(3): 37-50.

¹² This is not to say that international pressures play no role in regime failure; in fact, they have a prominent role in my analysis (see Chapters 3 and 4). Failures in neighboring states can weaken regimes and create windows of opportunity for dissidents. See Gleditsch, Kristian Skrede. 2007. "Transnational Dimensions of Civil War." *Journal of Peace Research*, 44(3): 293-309 and discussion of "snowballing" in Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman, OK: University of Oklahoma Press.

transitions.¹³ Coup and civil war share many common causes, but they have developed large and distinct literatures that are reviewed separately below.

Coups are nearly always associated with factions of the military or security forces that have access to state leaders, and coups are distinguished from other civil conflicts by the fact that coups may not lead to mass movements or violence. Although coups often instigate popular rioting and large-scale conflicts, coups begin as tactical plots aimed at the top echelons of state leadership and do not necessarily entail widespread fighting and violence. Marshall and Marshall, the creators of the coup data set used for this project, define coup as:

“a forceful seizure of executive authority and office by a dissident / opposition faction within the country’s ruling or political elites that results in substantial change in the executive leadership and the politics of the prior regime (although not necessarily in the nature of regime authority or mode of governance)” (Marshall and Marshall, 2010, 1).

Scholarly interest in coups peaked in the 1960s and 1970s when tenuous civil-military relationships threatened a number of regimes, especially in Latin America. The cornerstones of the literature were published in this time period, and coup research continues to be grounded in these influential books by Huntington (1957, 1968), Finer (1962), Luttwak (1968), and Nordlinger (1977).¹⁴ This work focuses on the military’s

¹³ The claim that voluntary transitions are preempted civil conflicts is supported by Acemoglu, Daron and James A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press, Bratton, Michael and Nicholas Van de Walle. 1997. *Democratic Experiments in Africa: Regime Transitions in Comparative Perspective*. New York: Cambridge University Press, and Geddes, Barbara. 1999. “What Do We Know About Democratization After Twenty Years?” *Annual Review of Political Science*, 2(1): 115-144.

¹⁴ Seminal titles include: Finer, Samuel E. 1962. *The Man on Horseback: The Role of the Military in Politics*. London: Pall Mall, Huntington, Samuel P. 1957. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge, MA: Harvard University Press, Huntington, Samuel P. 1968. *Political Order in Changing Societies*. New

motivations for intervening in civilian politics and considers the *civil-military problematique*, which is the idea that placating the military with defense spending also increases its capacity to overthrow the government.¹⁵ Though these authors have some disagreements, they generally concur on some important points. First, military bureaucracies have corporate interests and they are more likely to stage a coup when these interests are not being satisfied.¹⁶ Second, militaries are more likely to intervene in politics if the civilian apparatus has not successfully professionalized the army to reduce its praetorian inclinations.¹⁷ This subjugation to the civilian government is thought to be more effective when governments institute checks on military power and have clear and distinct roles for the civilian government and the military.¹⁸ Finally, they agree that the military is more likely to intervene when its actions are made legitimate by poor governance, economic crises, and social divisions.¹⁹ In short, the early literature treats the military as a motivated political force that will act unless governments satisfy its interests or contain it via institutionalization and effective civilian government.²⁰

Haven: Yale University Press, Luttwak, Edward. 1968. *Coup d'État: A Practical Handbook*. Cambridge, MA: Harvard University Press, and Nordlinger, Eric. 1977. *Soldiers in Politics: Military Coups and Governments*. New York: Prentice-Hall.

¹⁵ See Feaver, Peter D. 1999. "Civil-Military Relations." *Annual Review of Political Science*, 2(1): 211–241.

¹⁶ Nordlinger, Eric A. 1970. "Soldiers in Mufti: The Impact of Military Rule upon Economic and Social Change in Non-Western States." *American Political Science Review*, 64(4): 1131–1148.

¹⁷ See Finer (1962) and Huntington (1957).

¹⁸ Huntington (1968).

¹⁹ Needler, Martin C. 1975. "Military Motivations in the Seizure of Power." *Latin American Research Review*, 10(3): 63–79.

²⁰ Nordlinger (1970). Also see O'Donnell, Guillermo. 1973. *Modernization and Bureaucratic Authoritarianism: Studies in South American Politics*. Berkeley: University of California

The literature took a turn at the end of the 1970s when political scientists began using econometrics to identify causes of coup in cross-national analyses. Led by scholars like Robert Jackman and Rosemary O’Kane, most attention shifted to explaining the rise of coups in sub-Saharan Africa. New methods and a different region of study generated some novel insights that were contested throughout the 1980s. More specifically, this research moved the field away from the discussions of corporate interests and praetorian motivations that dominated the early literature. Instead, this work focused attention on a number of structural conditions that are conducive to military intervention, including poor economic performance,²¹ economic crises,²² resource dependence,²³ history of coup,²⁴ ethnically and politically divided populations,²⁵ and

Press, Perlmutter, Amos. 1969. “The Praetorian State and the Praetorian Army: Toward a Taxonomy of Civil-Military Relations in Developing Polities.” *Comparative Politics*, 1(3): 382–404, and Putnam, Robert D. 1967. “Toward Explaining Military Intervention in Latin American Politics.” *World Politics*, 20(1): 83–110.

²¹ Johnson, Thomas, Robert O. Slater, and Pat McGowan. 1984. “Explaining African Military Coup d’États, 1960–1982.” *American Political Science Review*, 78(3): 622–640, McGowan, Pat and Thomas H. Johnson. 1984. “African Military Coups d’État and Underdevelopment.” *Journal of Modern African Studies*, 22(4): 633–666, and Zuk, Gary and William Thompson. 1982. “The Post-Coup Military Spending Question: A Pooled Cross-Sectional Time Series Analysis.” *American Political Science Review*, 76(3): 1078–1097.

²² Galetovic, Alexander and Ricardo Sanhueza. 2000. “Citizens, Autocrats, and Plotters: A Model and New Evidence on Coups d’État.” *Economics and Politics*, 12(2): 183–204, Londregan, John B. and Keith T. Poole. 1990. “Poverty, the Coup Trap, and the Seizure of Executive Power.” *World Politics*, 42(2): 151–183, O’Kane, Rosemary H. 1981. “A Probabilistic Approach to the Causes of Coups d’État.” *British Journal of Political Science*, 11(3):287–308, and O’Kane, Rosemary H. 1983. “Towards an Examination of the General Causes of Coup d’État.” *European Journal of Political Research*, 11(1): 27–44.

²³ O’Kane’s work in this area includes O’Kane (1981), O’Kane (1983), and O’Kane, Rosemary H. 1993. “Coups d’État in Africa: A Political Economy Approach.” *Journal of Peace Research*, 30(3): 251–270.

²⁴ The major study on leader duration and regime failure is Bienen, Henry and Nicholas van de Walle. 1991. *Of Time and Power*. Stanford, CA: Stanford University Press. Londregan and Poole (1990) apply this theory directly to the problem of coup.

weak political institutions.²⁶ Interest in military motivations for intervention waned as more emphasis was placed on the contextual conditions that create opportunities for coup.²⁷

Some recent papers returned to military motivations to reconsider some policies leaders can use to reduce the likelihood of coup. Leonardo Arriola (2009) uses data on African cabinet appointments to show that African regimes can reduce the incidence of coup d'état by strategically appointing elites to cabinet-level positions. This suggests influential members of the military elite can be placated with personal favors from the state.²⁸ Similarly, Tusalem (2010) shows the military is more likely to intervene when the ruling regime is not a reliable guarantor of property rights for the wealthy.²⁹ Others stress the military's corporate interests by demonstrating that leaders can reduce the likelihood of coup by increasing arms transfers and military spending. Increasing

²⁵ Jackman, Robert W. 1978. "The Predictability of Coups d'État." *American Political Science Review*, 72(4): 1262–1275 and Jenkins, J. Craig and Augustine J. Kposowa. 1992. "The Political Origins of African Military Coups: Ethnic Competition, Military Centrality, and the Struggle over the Postcolonial State." *International Studies Quarterly*, 36(3): 271–292.

²⁶ Huntington (1968).

²⁷ This shift is discussed explicitly in O'Kane (1981).

²⁸ Arriola, Leonardo R. 2009. "Patronage and Political Stability in Africa." *Comparative Political Studies*, 42(10): 1339–1362. Also see Hagopian, Frances. 1990. "Democracy by Undemocratic Means?" *Comparative Political Studies*, 23(2): 147–170 and Kimenya, Mwangi and John Mukum Mbaku. 1996. "Rents, Military Elites, and Political Democracy." *European Journal of Political Economy*, 11(4): 699–708. For the authoritative case study of military appeasement in post-Franco Spain, see Agüero, Felipe. 1995. *Soldiers, Civilians, and Democracy: Post-Franco Spain in Comparative Perspective*. Baltimore: Johns Hopkins University Press.

²⁹ Tusalem, Rollin F. 2010. "Determinants of Coup d'État Events, 1970–1990: The Role of Property Rights Protection." *International Political Science Review*, 31(3): 346–365.

defense budgets is dangerous, however, because it temporarily appeases the military while increasing its power.³⁰

The second mechanism by which regimes fail is civil war. Civil wars, which are sometimes also called intra-state wars, revolutions, and uprisings, entail organized fighting between the armed forces of a government and at least one non-state domestic actor. “Civil war,” “revolution,” and “uprising” are not perfectly interchangeable terms in the academic literatures on these topics, but I use civil war here as a catch-all term that includes major conflicts between the state and organized non-state domestic opponents. Civil wars are often internationalized when either side gets assistance from transnational participants, but domestic actors must be the core participants in these conflicts.³¹

Before the late 1990s, civil war was a minor topic in political science and economics. A few important books on ethnic conflict and insurgency were published, but there were few systematic studies of the causes of civil conflict.³² This was changed by the circulation of a working paper by Paul Collier and Anke Hoeffler, titled “Greed

³⁰ Wang, T. Y. 1998. “Arms Transfers and Coups d’État: A Study on sub-Saharan Africa.” *Journal of Peace Research*, 35(6): 659–675.

³¹ For an excellent discussion of the various uses of “civil war” and the empirical implications of disagreements over its precise definition, see Sambanis, Nicholas. 2004. “What is Civil War? Conceptual and Empirical Complexities of an Operational Definition.” *Journal of Conflict Resolution*, 48(6): 814–858. The empirical analysis presented in later chapters operationalizes civil war according to definitions provided by the Uppsala Conflict Data Program. See Chapter 4 for more details.

³² More notable titles from this period include: Gurr, Ted Robert. 1971. *Why Men Rebel*. Princeton, NJ: Princeton University Press., Horowitz, Donald L. 1985. *Ethnic Groups in Conflict*. Berkeley: University of California Press, and Lichbach, Mark Irving. 1995. *The Rebel’s Dilemma*. Ann Arbor, MI: University of Michigan Press.

and Grievance in Civil War.”³³ In the paper, the Oxford economists argue that war cannot be attributed to “atypical motivations” (grievances) such as ethnic discord, relative deprivation, or repression. Instead, they find war to be caused by “atypical opportunities” (greed) for conflict created by impoverished states, natural resource dependence, diaspora support for rebels, and a low cost of rebellion due to residual weapons and experience from previous conflicts. This paper is the foundation of the young quantitative literature on civil war and dozens of papers have adapted the “greed versus grievance” framework introduced in this paper.³⁴

The most important of these papers is Fearon and Laitin’s 2003 article titled “Ethnicity, Insurgency, and Civil War.” Here, Fearon and Laitin extend the greed argument by showing that wars occur where they are most feasible for rebels. Using time-series cross-sectional analysis, they show that post-WWII civil wars are best predicted by conditions that lower the costs of conflict for insurgents. These conditions include rough terrain that allows rebels to hide, weak or sympathetic neighboring countries that offer “cross-border sanctuary,” the presence of “lootable goods” that enable rebels to purchase arms, and low national income, which weakens government defenses.

³³ This working paper was cited as early as 1998, although it wasn’t published until six years later. See: Collier, Paul and Anke Hoeffler. 2004. “Greed and Grievance in Civil War.” *Oxford Economic Papers*, 56(4): 563-595.

³⁴ The authors have since clarified their argument by replacing the “greed vs. grievance” language with “feasibility theory,” but political scientists and economists continue to use the older nomenclature. See Collier, Paul, Anke Hoeffler, and Dominic Rohner. 2009. “Beyond Greed and Grievance: Feasibility and Civil War.” *Oxford Economic Papers*, 61(1): 1-27.

The correlates of civil war are now well-documented. This literature continues to bring attention to the measurement of important concepts, including civil war,³⁵ natural resource dependence,³⁶ and ethnic diversity.³⁷ However, this research is fairly criticized for being under-theorized, and the “greed versus grievance” framework generates an unproductive rivalry between motivation-based and opportunity-based explanations when most case studies emphasize both sources of war. The quantitative literature also focuses on explanatory variables that are more easily measured, and these tend to be the aforementioned state-level characteristics that are associated with opportunities for conflict. Critics point to the need for more sub-national and micro-level research on the reasons individuals decide to join rebel movements.³⁸

Many scholars have embraced this challenge, and there are now a number of fascinating papers on rebel recruitment. While ethnicity has some certain advantages for group mobilization and cohesion,³⁹ scholars find economics to be the more

³⁵ See Sambanis (2004).

³⁶ Humphreys, Macartan. 2005. “Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms.” *Journal of Conflict Resolution*, 49(4): 508–537 and Ross, Michael L. 2004. “What Do We Know About Natural Resources and Civil War?” *Journal of Peace Research*, 41(3): 337–356.

³⁷ Blimes, Randall J. 2006. “The Indirect Effect of Ethnic Heterogeneity on the Likelihood of Civil War Onset.” *Journal of Conflict Resolution*, 50(4): 536–547, Esteban, Joan and Debraj Ray. 2008. “On the Salience of Ethnic Conflict.” *American Economic Review*, 98(5): 2185–2202, Montalvo, Jose G. and Marta Reynal-Querol. “Ethnic Polarization, Potential Conflict, and Civil Wars.” *American Economic Review*, 95(3): 796–816, Posner, Daniel N. 2004. “Measuring Ethnic Fractionalization in Africa.” *American Journal of Political Science*, 48(4): 849–863.

³⁸ A recent survey of this literature is Blattman, Christopher and Edward Miguel. 2010. “Civil War.” *Journal of Economic Literature*. 48(1): 3-57.

³⁹ Gates, Scott. 2002. “Recruitment and Allegiance: The Microfoundations of Rebellion.” *Journal of Conflict Resolution*, 46(1): 111–130 and Lyall, Jason. 2010. “Are Coethnics More Effective Counterinsurgents? Evidence from the Second Chechen War.” *American Political Science Review*, 104(1): 1–20.

important determinant of participation in rebellion. Simply stated, wars are likely to occur where opportunity costs for conflict are very low. Accordingly, states that use indiscriminate violence against their populations are likely to face more rebel recruitment because joiners do not avoid risk by abstaining from the conflict.⁴⁰ Where rebels can pay their recruits with revenues gained from minerals and drugs, citizens are more likely to join the rebellion.⁴¹ If citizens observe substantial regional inequality, as they do in Nigeria's Niger Delta or southern Sudan, a "grass is greener" mentality emerges and people join the rebels to obtain the goods seen in other parts of the country.⁴²

In summary, the contemporary literature on civil war onset is shaped by an extensive but under-theorized debate between those who attribute war to grievances and those who trace it to opportunity. This research identifies a number of well-established correlates that emphasize the importance of state-level characteristics, such as geography, economic performance, and history. However, the causal mechanisms are unclear and more micro-level research is needed. The little micro-level work that exists does suggest, however, that rebel recruitment is tied first-and-foremost to the economic well-being of the population. Where individuals' opportunity costs for fighting are high, civil conflict is much less likely. Presumably, if the government can focus its policies on

⁴⁰ Kalyvas, Stathis N. 2006. *The Logic of Violence in Civil War*. New York: Cambridge University Press and Lyall, Jason. 2009. "Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya." *Journal of Conflict Resolution*, 53(3): 331–362.

⁴¹ A micro-level study of this phenomenon at work in Sierra Leone is Humphreys, Macartan and Jeremy M. Weinstein. 2008. "Who Fights?: The Determinants of Participation in Civil War." *American Journal of Political Science*, 52(2): 436–455.

⁴² Buhaug, Halvard and Jan Ketil Rød. 2006. "Local Determinants of African Civil Wars, 1970–2001." *Political Geography*, 25(3): 315–335 and Østby, Gudran, Ragnhild Nordås, and Jan Ketil Rød. 2009. "Regional Inequalities and Civil Conflict in Sub-Saharan Africa." *International Studies Quarterly*, 53(2): 301–324.

increasing the opportunity costs associated with joining a rebel movement, then it can reduce the incidence of civil war even if it cannot change unfavorable terrain, history, or unrest in neighboring states.

While the primary predictors of coup and civil war would seem to be beyond the control of leaders of weak regimes, both literatures also contain some promising findings. Military leaders can be placated with special pacts, and potential rebel recruits can be deterred if their status quos improve and opportunity costs for fighting increase. History and geography are not easily changed, but the leaders of weak regimes may be able to increase regime stability by working toward the appeasement of the coup plotters and revolutionaries who threaten their regimes. Elites can be co-opted, and mass movements can be undercut if the goods foregone by fighting are increased. This argument begs two questions: what tools might leaders use to appease their likely challengers, and under what conditions are these attempts at appeasement likely to be effective?

The Argument

I contend leaders possess the tools they need to appease their challengers because they control the allocation of government resources. That leaders use resource allocation to maintain power is thoroughly explored in the context of institutional competition for executive office. Leaders are able to identify and target voters, cabinet-members, and any other veto players who participate in executive selection, so might they also be able to identify and target extra-institutional challengers like coup plotters and revolutionaries? This dissertation explores this important puzzle and finds that just

as leaders use government spending to overcome institutional challenges (elections, party negotiations, etc.), leaders will also sometimes use strategic government spending to reduce the likelihood of losing power via extra-institutional means.

The root of this argument is the *logic of political survival* that links leaders' desires to stay in office to their decisions over the provision of public and private goods. This language was popularized by Bueno de Mesquita, Smith, Siverson, and Morrow (2003) in their foundational work on selectorate theory,⁴³ but this logic underlies similar arguments in the literature on public spending and social welfare.⁴⁴ The argument can be reduced to three basic propositions. First, leaders' actions reflect the desire to maintain power. Regardless of regime type, political ideology, or any individual or contextual trait, all leaders are expected to act in accordance with the preference to stay in power.

Second, leaders are selected by a group of enfranchised citizens and leaders maintain power by attracting the support of a *winning coalition* of these citizens. In democracies, the winning coalition is very large because it includes all of the voters from whom the leader must collect votes to stay in power. Winning coalitions are generally smallest in non-democratic regimes where the leader may need only the support of a few generals or cabinet-level officials to maintain power. All political competition that occurs within a regime can be characterized as competition over the winning coalition, whether this competition takes the form of inclusive democratic elections or less

⁴³ These authors introduced this concept in a series of articles that culminated with the book: Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press.

⁴⁴ See Boix, Carles. 2003. *Democracy and Redistribution*. New York: Cambridge University Press and Lake, David A. and Matthew Baum. 2001. "The Invisible Hand of Democracy: Political Control and the Provision of Public Services." *Comparative Political Studies*, 34(6): 587-621.

transparent methods of executive selection such as secret and exclusive intra-junta negotiations.

Finally, the size of the winning coalition dictates how the leader best acts according to her preference to maintain power. Because political competition occurs over the winning coalition, the logic of political survival compels leaders to secure their tenures by placating their winning coalitions. Thus, variation in state policy is not a function of variation in leaders' preferences or abilities. Rather, leaders of regimes with large winning coalitions aim to please large portions of the population while leaders of regimes with small winning coalitions focus their efforts on a much smaller subset of constituents. These incentives cause leaders of regimes with large winning coalitions to allocate more resources toward public goods, while leaders of regimes with small winning coalitions gain less utility from the dispersion of resources via public goods spending and instead target regime insiders with concentrated private goods and special favors.

In the last decade, public goods scholars have used this logic to explain regimes' provision of public education, public health, welfare spending, and public goods more generally. Generally, the larger the number of constituents a leader must satisfy to maintain power, the greater that leader's commitment to public goods provision.⁴⁵

⁴⁵ For studies of public education, see Avelino, George, David S. Brown, and Wendy Hunter. 2005. "The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America, 1980-1999." *American Journal of Political Science*, 49(3): 625-641, Brown, David S. 1999. "Reading, Writing, and Regime Type: Democracy's Impact on School Enrollment." *Political Research Quarterly*, 52(4): 681-707, Brown, David S. and Wendy Hunter. 2004. "Democracy and Human Capital Formation: Human Capital Formation in Latin America." *Comparative Political Studies*, 37(7): 842-864, and Stasavage, David. 2005. "Democracy and Education Spending in Africa." *American Journal of Political Science*, 49(2): 343-358. Public health is studied in Filmer, Deon and Lant Prichett. 1999. "The Impact of Public Spending on Health: Does Money Matter?" *Social Science and Medicine*, 49(10): 1309-1323, Ghobarah, Hazem Adam, Paul Huth, and Bruce Russett.

This research shows leaders to be self-interested and power-seeking individuals who allocate government spending so as to maintain favor with those who can remove them from power via institutional mechanisms. If leaders use government spending to insulate their regimes in institutional settings, then might they do the same when they face other challenges like coup and civil war? To remain in power, leaders must thwart institutional threats to leadership that occur when the winning coalition is tempted to support a political rival, but leaders are also challenged by extra-institutional threats to leadership presented by those with the power and motivation to topple political institutions. Consequently, patterns of government spending should reflect leaders'

2004. "Comparative Public Health: The Political Economy of Human Misery and Well-Being." *International Studies Quarterly*, 48(1): 73–94, Navia, Patricio and Thomas D. Zweifel. 2003. "Democracy, Dictatorship, and Infant Mortality Revisited." *Journal of Democracy*, 14(3): 90–103, Ross, Michael L. 2006. "Is Democracy Good for the Poor?" *American Journal of Political Science*, 50(4): 860–874, and Zweifel, Thomas D. and Patricio Navia. 2000. "Democracy, Dictatorship, and Infant Mortality." *Journal of Democracy*, 11(2): 99–114. Welfare spending is the focus in Brown, David S. and Wendy Hunter. 1999. "Democracy and Social Spending in Latin America, 1980-1992." *American Political Science Review*, 93(4): 779–790, Boix, Carles. 2001. "Democracy, Development, and the Public Sector." *American Journal of Political Science*, 45(1): 1–17, Kaufman, Robert R. and Alex Segura-Ubierno. 2001. "Globalization, Domestic Politics, and Social Spending in Latin America: A Time-Series Cross-Section Analysis, 1973-1997." *World Politics*, 53(4): 553–587, and Niskanen, William A. 1997. "Autocratic, Democratic, and Optimal Government." *Economic Inquiry*, 35(3): 464–479. More general empirical explorations of the link between regime type and public goods provision include Baum, Matthew and David A. Lake. 2003. "The Political Economy of Growth: Democracy and Human Capital." *American Journal of Political Science*, 47(2): 333–347, Bueno de Mesquita et al. (2003), Deacon, Robert T. 2003. "Dictatorship, Democracy, and the Provision of Public Goods." Unpublished Departmental Paper, University of California, Santa Barbara, Deacon, Robert T. and Sarani Saha. 2005. "Public Good Provision by Dictators: A Survey." Unpublished Departmental Paper, University of California, Santa Barbara, Lake and Baum (2001), Morrow, James D., Bruce Bueno de Mesquita, Randolph M. Siverson, and Alastair Smith. 2008. "Retesting Selectorate Theory: Separating the Effects of *W* from Other Elements of Democracy." *American Political Science Review*, 102: 393–400, Mulligan, Casey B., Richard Gil, and Xavier Sala-i Martin. 2004. "Do Democracies have Different Public Goods Policies than Nondemocracies?" *Journal of Economic Perspectives*, 18(1): 51–74, and Przeworski, Adam, Michael Alvarez, José Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. New York: Cambridge University Press.

efforts to address both institutional threats to the leader as well as extra-institutional threats to the institutions that place the leader in power.

If leaders are vulnerable to both institutional and extra-institutional mechanisms for leader replacement, then they will reallocate government resources to best address *all* threats to their leadership tenures. The leaders of strong regimes face no viable extra-institutional challengers. This allows them to focus their spending on their winning coalitions because the only viable threat is posed by the institutional process for executive selection. However, the leaders of weak regimes can be replaced via institutional or extra-institutional mechanisms. This means that their leadership survival is dependent upon their ability to please both audiences. If leaders fail to do so, they will be replaced via institutional means or their regimes will face a challenge that could lead to regime failure.

This argument is dependent upon the preferences and strategies of many actors, including leaders, voters, and extra-institutional challengers. For this reason, I deduce hypotheses about the relationship between regime spending and regime stability by modeling the strategic environment in which decisions over government spending and coup/civil war initiation are made. This model, described in Chapter 2, is solved for three subgame perfect Nash equilibria, which are then translated into empirical implications to be tested in later chapters.

Chapter 3 examines the first set of empirical implications, which are called the *spending hypotheses*. Here, regime strength and regime type are predicted to determine patterns of spending. As expected, strong regimes spend according to the preferences of their institutional audiences. They face no viable threat of an extra-institutional challenge so they need not placate powerless coup plotters or revolutionaries. Just as the

institutional literature predicts, strong inclusive regimes spend more on public goods while strong exclusive regimes waste no resources on the disenfranchised masses and instead concentrate wealth on the small cadre ruling the country. After accounting for regime strength, I show that the positive effect of inclusive rule on public goods provision is severely understated in previously published research. If we only consider regimes that are too strong to face a viable extra-institutional challenge, then the public benefits of inclusive government are much greater than prior work reports them to be.

Very different patterns describe spending in weak regimes. Fearing a challenge from elites who want less redistribution, the leaders of weak inclusive regimes reduce public goods provision and instead allocate resources toward special favors for elites. This helps to explain why the leaders of young democracies often have corrupt regimes and scandalous relationships with elites. These leaders can only begin to increase public goods provision when their regimes strengthen and these elites are marginalized. The opposite is true of weak exclusive regimes. These leaders do not immediately neglect the public and shower their small group of supporters with private goods. Instead, they recognize that they must placate the masses with public goods spending. They only neglect the public after their regimes strengthen and the threat of a challenge on behalf of the public becomes unviable.

Chapter 4 turns to the *stability hypotheses*, which relate to the relationship between government spending and the incidence of coup and civil war initiation. Chapter 3 finds that the leaders of exclusive regimes increase public goods provision when they are too weak to placate the masses. This suggests that those regimes that fail to increase public goods provision should be at a greater risk of conflict. The results presented in this chapter support this hypothesis. Spending has no effect on stability in

the strongest exclusive regimes because when these regimes are very strong, extra-institutional threats are unlikely regardless of how the regime spends its money. But when these regimes are weak, leaders can reduce the likelihood of coup and civil war by more than 50% by increasing public goods provision by one standard deviation. Benevolence results in robust and substantively significant increases in regime stability.

On the other hand, challengers to inclusive regimes should be appeased by private goods spending, so we should see a negative relationship between public goods provision and extra-institutional challenges in these regimes. Inclusive regimes spending more on public goods and less on private goods for disaffected elites should be more likely to suffer these challenges. Surprisingly, the data do not support this hypothesis. This suggests inclusive regimes can use alternate strategies to address these threats. These strategies, which are uncovered in the fifth chapter, suggest the conditions under which weak inclusive regimes can provide high levels of public goods while maintaining regime stability.

I complement the quantitative tests in Chapters 3 and 4 with a nested analysis in Chapter 5. I use the results from the tests discussed in Chapter 4 to select two cases for closer examination. To better understand how inclusive regimes can remain stable without buying the support of powerful elites, I use a most-similar-systems comparison of two weak inclusive regimes. Taking advantage of the natural experiment provided by Africa's rapid "third wave" of democratization, I compare two weak African democracies that provided exceptionally high levels of public goods after their transitions. The "on-the-line" case is the Republic of the Congo (Congo-Brazzaville), which suffered the expected civil war (1992-1997) when the new government refused to placate the marginalized elites. The "off-the-line" case that succeeded despite high public goods

provision is Zambia (1991-present). These case studies result in an important finding. Leaders' strategies for dealing with elites are shaped not only by the strength of their regimes, but also by the structure of the political institutions of their new democracies. In the Republic of the Congo, a dual executive system and proportional legislative voting meant that the new incumbent party would be forced to compromise with the leaders of other parties and offer them too much influence over the government. Making such a compromise would have endangered the new regime, so the incumbent refused and invoked military challenges from rival parties. In Zambia, first-past-the-post legislative voting and a strong executive branch meant that the new incumbent party did not need to form coalitions and empower rivals. Geographic member districts and gerrymandering allowed the incumbent party to hold a super-majority in the National Assembly which was far greater than its vote share. This permitted the new Movement for Multiparty Democracy (MMD) party to marginalize rivals and pass electoral reforms that discouraged opposition leaders from joining to form a viable threat to the regime.

The sixth chapter summarizes the findings, acknowledges some limitations of the project, and shares some implications for further research.

FORMAL MODEL OF SPENDING AND STABILITY

Do leaders use government spending to respond to the threats posed by viable internal dissidents? Under what conditions can leaders successfully increase regime stability by altering government spending? To answer these questions, one must understand how leaders decide to allocate government resources and how relevant actors are likely to respond to these spending decisions. In various institutional contexts these actors may include voters, regime insiders, ambitious rivals for power, and those possessing the capacity and motivation to overthrow the regime by force. Here, I use a formal model to explore the policy decisions leaders are likely to make in this complex strategic environment and I solve for conditions under which these decisions are likely to result in increased regime stability. The hypotheses derived from the model form the theoretical foundation of this dissertation project.

The model and its solution are fully specified below but briefly described here. In summary, I find that leaders sometimes face a strong incentive to buy the support of their most likely challengers by altering government spending on public and private goods. When presented with a viable threat to the regime, leaders will allocate government resources so as to placate the challenger and decrease the risk of a challenge to the regime. Furthermore, the solution to the model suggests the leader's decision over government spending is primarily determined by the interaction of two important factors. First, the inclusiveness of the regime decides whether increased public goods or

increased private goods are required to buy off the most likely challenger. Second, the strength of the regime determines the extent to which leaders must compromise spending to placate their challengers. With careful consideration of these two factors, leaders can sometimes use government spending to greatly decrease the risk of major challenges such as civil war and coup d'état.

The next two sections describe the model and culminate in three subgame perfect Nash equilibria (SPNE). Then, these solutions are translated into testable hypotheses pertaining to how viable extra-institutional challengers alter the calculus of public and private goods provision (spending hypotheses) and when patterns of government spending affect the incidence of extra-institutional challenges (stability hypotheses).

Formal Model

Let every government, regardless of regime type, have an incumbent leader (I) who practices executive power over the state. While the specific titles and duties assigned to the incumbent will vary across diverse political systems, the incumbent always serves as the head-of-government. Presidents and prime ministers typically fit this description in democratic systems, but monarchs, personalist dictators, party chairmen, and junta leaders can also occupy this role. Incumbents do not include titular heads-of-state, such as royalty in constitutional monarchies like Australia and Belgium.¹

¹ As of March 2011, the incumbents in these states were Prime Minister Julia Gillard of Australia (rather than Queen Elizabeth II) and Prime Minister Yves Leterme of Belgium (rather than King Albert II).

Rather, the incumbent is the executive head-of-government who is ultimately responsible for state policy.²

Incumbent leaders are a diverse group with many distinct personalities and ideologies, but all incumbents receive some benefits from holding executive power. Leaders may derive many benefits from office, ranging from the economic perks associated with power to any non-economic satisfaction or prestige that comes from incumbency. The nature of the benefits that incumbents collect from maintaining power is irrelevant. Assume only that incumbents derive benefits from holding executive office. When incumbents are able to maintain power, they receive these benefits, which are fixed at 1. However, ousted leaders fail to collect the benefits of incumbency and receive 0 when they lose power.

The incumbent is tasked with the allocation of government resources and I assume the incumbent to have sufficient authority over this decision. Following the large literature on government spending, I simplify this decision by collapsing the innumerable varieties of government expenditures into the more general categories of public and private goods. Public goods include items that generally benefit all members of society, including investment in health and human welfare, spending on public education, and the provision of basic human rights.³ Conversely, private goods

² Goemans, Gleditsch, and Ciozza recently completed the *Archigos* data project, which identifies the incumbent for all states for each day dating back to the early nineteenth century. For specific questions about incumbent identification for any given state-date, please refer to Goemans, Henk E. Kristian Skrede Gleditsch, and Giacomo Chiozza. 2009. "Introducing *Archigos*: A Dataset of Political Leaders." *Journal of Peace Research*, 39(5): 615-637.

³ Of course, public goods are rarely, if ever, perfectly non-excludable. For example, investment in healthcare is likely to benefit those who can afford treatment more than the poorest residents or those living in rural areas. Likewise, spending on tertiary education may benefit only those citizens with a reasonable opportunity to achieve high levels of education. Still, the logic derived from the model will apply to these "less-excludable" goods, even if they are

provision benefits only a select constituency and usually includes special favors and access, graft, and kleptocracy. Money spent on repression and the security of the ruling regime from domestic challengers can also be considered to be private goods provision because these expenditures benefit only those citizens who prefer the existing political regime.⁴

The incumbent's decision over the allocation of public and private goods is modeled as follows. The government possesses finite resources and these resources are set equal to 1. From this fixed pool of resources, the incumbent chooses to spend some amount on public goods (g_I), while the remainder is spent on private goods for her supporters ($1 - g_I$). This decision is a continuous decision where the government's provision of public goods must fall within the range $0 \leq g_I \leq 1$.⁵

Following the incumbent's allocation of resources toward public and private goods, a political rival (R) is introduced to the environment. This political rival challenges the incumbent for executive power via the institutional process for leader

not perfectly non-excludable in actuality. For more on this problem, see the discussion of public goods measurement in Chapter 3.

⁴ For further discussion of public and private goods, see Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press and Lake, David A. and Matthew Baum. 2001. "The Invisible Hand of Democracy: Political Control and the Provision of Public Services." *Comparative Political Studies*, 34(6): 587-621.

⁵ Government resources are not fixed, but vary with the government's ability to raise income, extract resources, and accrue debt. Here, I assume constituents to be concerned with their relative share of state resources, rather than their absolute share. As state wealth increases, residents demand more spending so that they maintain their share of the wealth. This emphasis on the relative share of spending is captured by the tradeoff the incumbent must make between public and private goods. It is also consistent with research on grievances, relative deprivation, and civil conflict. See Gurr, Red Robert. 1971. *Why Men Rebel*. Princeton, NJ: Princeton University Press. Changes in government revenue are accounted for in the empirical tests in later chapters with a control for logged per capita gross domestic product.

selection. This rival may be a candidate from another political party, an ambitious member of the ruling junta or single-party apparatus, or even a member of a royal family. The nature of the rival is dictated by a regime's political institutions, and in different contexts this rival's path to power may include multi-party elections, intra-party negotiations, or coalition building with regime insiders. In each case, the rival vies for power not by overthrowing the regime, but by competing for office via institutional mechanisms for executive selection.

The rival's primary aim is to replace the incumbent, which she achieves by attracting a sufficient level of support from those with power over executive selection. She attempts to do this by countering the incumbent's provision of public and private goods with her own promises of resource allocation. The rival's counter-offer of public and private goods (g_R and $1 - g_R$) is the second move of the game. Should the rival gain power, she receives the benefits of incumbency (again, equal to 1). If the rival fails, then she receives 0.

In this way, the incumbent and rival compete for power by offering packages of public and private goods that will attract a pivotal selector (S) whose support decides which candidate will hold executive office. This simple model of institutional competition for office characterizes many different institutions for executive selection. Democracy scholars understand elections to be competitions for an important pivotal voter who decides incumbent victory or defeat.⁶ In more exclusive systems, rivals vie for power by creating alliances within the ruling cadre, junta, or politburo. These power

⁶ See the foundational work by Black, Duncan. 1948. "On the Rationale of Group Decision Making." *Journal of Political Economy*, 56(1): 23-34 and Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper.

transitions often occur when rival coalitions are able to coerce an integral member of the incumbent's coalition to defect.⁷ In any political system, power shifts from the incumbent to the rival when the pivotal selector prefers the rival's package of public and private goods to that offered by the incumbent.

Following the literature summarized in the previous chapter, I assume the pivotal selector's ideal point over the distribution of public and private goods to be determined by the number of constituents a candidate must attract to win power. When a pivotal selector is a member of a very exclusive winning coalition, the pivotal selector will have a greater preference for private goods provision. The pivotal selector's preference for public goods provision increases with regime inclusiveness. All else being equal, the pivotal selector will choose the package of public and private goods that is closest to her ideal point.

I model this preference by setting the pivotal selector's ideal point over public goods provision equal to w , which is the size of the winning coalition a candidate for executive office must maintain to assume power. Let w be a continuous parameter bounded by 0 and 1 so that $w = 1$ in the most inclusive systems (the pivotal selector is one of many citizens participating in executive selection) and $w = 0$ in the least inclusive systems (the pivotal selector alone determines executive leadership). In inclusive systems like democracies, leaders must obtain the support of a very large population of voters. w is high so the pivotal selector's ideal point over public goods provision is also high. Where leaders need very few supporters to maintain power, w is low and the pivotal selector prefers exclusive private goods to broadly-distributed public goods. This

⁷ See, for example, Robert Barros' (2002) work on decision-making within the Chilean military junta in Barros, Robert. 2002. *Constitutionalism and Dictatorship: Pinochet, the Junta, and the 1980 Constitution*. New York: Cambridge University Press.

relationship is represented with a standard quadratic loss function where the pivotal selector prefers less difference between the level of public goods provision (g) and the inclusiveness of the regime (w): $u_s(g) = -(w - g)^2$. This function is optimized - which is to say that the ideal offer is made - when public goods provision is proportional to the size of the coalition to which the pivotal selector belongs.

The decision to support the incumbent (s_I) or the rival (s_R) constitutes the last move of the institutional phase of the game. Excluding the possibility of an external challenge to the regime for a moment, one can see that the competition between rival and incumbent drives public goods spending to the ideal point of w . The pivotal selector will favor the incumbent when g_I is closer to w than g_R . Conversely, the rival rises to power should it make an offer of g_R that falls closer to the pivotal selector's ideal of w than does g_I . This is congruent with previous work on regime type and public goods provision, but this implication will not always hold when an extra-institutional challenger enters the scenario.

Assume that in every state there exists an actor or set of actors who prefers an alternate distribution of public and private goods. This actor, called the extra-institutional challenger (E), may represent elites seeking to impose an exclusive regime, generals hoping to secure more state wealth for their personal bank accounts, or a populist movement striving for a freer and more inclusive government. The nature of the extra-institutional challenger need not be defined more specifically because the logic underlying the decision to fight against the regime should be similar whether the challenger is an aristocrat, revolutionary, labor movement, ethnic party, or admiral. The extra-institutional challenger can accept the regime, tolerate a suboptimal distribution

of public and private goods, and opt against fighting (a). Alternatively, the extra-institutional challenger can reject the leader's allocation of public and private goods and initiate a fight against the state (f). If the extra-institutional challenger decides against challenging the regime, then the game concludes and the candidate chosen by the pivotal selector rules and provides her proposed distribution of public and private goods. If the extra-institutional challenger decides to act against the regime, then a challenge occurs and the outcome of the challenge is probabilistic.

The goods accrued by the extra-institutional challenger when she accepts the regime are a function of (1) the difference between its ideal distribution of public and private goods and that offered by the regime, and (2) the cost of exclusion from the winning coalition. Like the pivotal selector, the extra-institutional challenger has an ideal point over resource allocation and she prefers regime spending to fall at this ideal point. Where the extra-institutional challenger's ideal point over public goods provision is represented by e , this term is modeled with the quadratic loss function: $-(e - g)^2$.

The extra-institutional challenger also suffers a *cost of exclusion* from the winning coalition, which is represented by the term $1 - w$. Opponents to inclusive regimes pay a low cost of exclusion because these regimes spend more on public goods relative to exclusive regimes. This low level of private goods provision means the recipients of private goods enjoy only a marginal advantage over those outside the winning coalition who do not receive any private goods. Conversely, when the regime is exclusive, the cost of exclusion is very high. Because the winning coalition is small and its members demand high levels of private goods, the advantage of being in the winning coalition is much greater. The regime has a strong institutional incentive to provide very few public goods, so the relative advantage of being a member of the winning coalition is

great. Given the same deviation between regime spending and the challenger's ideal point, the challenger is better off in an inclusive regime where she receives more public goods provision and the cost of exclusion $(1 - w)$ is minimized.

When the extra-institutional challenger accepts the regime, the following payoffs are awarded. The incumbent and challenger receive the benefits of executive office (set to 1) if selected by the pivotal selector and 0 if not selected. The pivotal selector receives $-(w - g_I)^2$ if she remains loyal to the incumbent and $-(w - g_R)^2$ if she defects to the rival coalition. The extra-institutional challenger gains $-(e - g_I)^2 - (1 - w)$ from continued rule by the regime when the pivotal selector chooses the incumbent and $-(e - g_R)^2 - (1 - w)$ when the pivotal selector chooses the political rival.

Should the extra-institutional challenger decide to fight the regime, the outcome is probabilistic. With probability p , the regime wins and the candidate chosen by the pivotal selector maintains power. With the corresponding probability $1 - p$, the extra-institutional challenge is successful, the challenger becomes the new leader, and she distributes public and private goods at her ideal point, represented by e . In both victory and defeat, an extra-institutional challenge results in costs for the challenger (c_E), leader (c_L), and the pivotal selector (c_S), whose share of benefits is reduced by resources spent on the challenge. Should the challenger win, the pivotal selector also suffers the cost of exclusion from the new regime, which now becomes $(1 - e)$.⁸ These probabilities

⁸ This cost of exclusion also encompasses any uncertainty the pivotal selector will have about her role in the new regime. If the extra-institutional challenger desires an exclusive regime and private goods, then the likelihood and cost of exclusion are very high. The chances that she will be included are very low and the marginal benefit of being included is very large. However, if the extra-institutional challenger wishes to implement an inclusive regime, then the pivotal selector's likelihood of exclusion is low, as are the costs of being excluded. The pivotal selector still suffers a cost if the new regime spends much more on public goods than she would prefer, but the relative advantage of being included in the new regime is relatively

and payoffs are combined to create the following expected utilities that occur when the extra-institutional challenger opts to initiate a challenge against the ruling regime. The leader selected by the pivotal selector receives $p(1) + (1 - p)(0) - c_L = p - c_L$ and the candidate not chosen by the pivotal selector receives 0. The pivotal selector's utility for conflict between the government and the extra-institutional challenger becomes $p(-(w - g)^2) + (1 - p)\{-(w - e)^2 - (1 - e)\} - c_S$. Finally, the extra-institutional challenger's expected utility is $p\{-(e - g)^2 - (1 - w)\} + (1 - p)(0) - c_E$ when she chooses to fight against the regime. This expected utility reduces to $p\{-(e - g)^2 - (1 - w)\} - c_E$.

TABLE 2.1: Actors' Payoffs for Each Outcome

	<i>Challenger Accepts Incumbent (u)</i>	<i>Challenger Fights Incumbent (EU)</i>
<i>I</i> :	1	$p - c_L$
<i>R</i> :	0	0
<i>S</i> :	$-(w - g_I)^2$	$p(-(w - g_I)^2) + (1 - p)\{-(w - e)^2 - (1 - e)\} - c_S$
<i>E</i> :	$-(e - g_I)^2 - (1 - w)$	$p\{-(e - g_I)^2 - (1 - w)\} - c_E$
	<i>Challenger Accepts Rival (u)</i>	<i>Challenger Fights Rival (EU)</i>
<i>I</i> :	0	0
<i>R</i> :	1	$p - c_L$
<i>S</i> :	$-(w - g_R)^2$	$p(-(w - g_R)^2) + (1 - p)\{-(w - e)^2 - (1 - e)\} - c_S$
<i>E</i> :	$-(e - g_R)^2 - (1 - w)$	$p\{-(e - g_R)^2 - (1 - w)\} - c_E$

small because the new regime will allocate most of its resources toward public goods, which the selector receives whether she is included in the new regime or not.

Subgame Perfect Nash Equilibria

The model results in three sub-game perfect Nash equilibria (SPNE), which is a class of Nash equilibria that sometimes occurs in extensive form games. A SPNE exists only when no actor can improve her utility by deviating from her behavior given the behavior of each of the other actors for each decision made in the game. Equilibria must hold for every actor at every subgame within the extensive form model. Because the final decisions made in the game determine the payoffs for all prior decisions, it is most efficiently solved using backward induction. Proofs of the claims and solutions offered below are found in the formal appendix at the end of this chapter. I begin with the final node in the model, which is the extra-institutional challenger's decision to accept (a) or fight (f) the regime led by the candidate chosen by the pivotal selector.

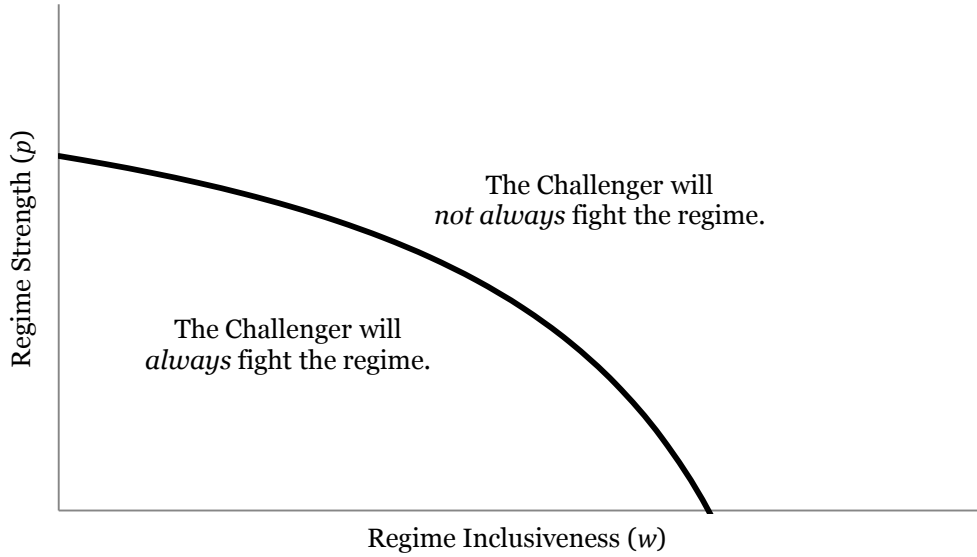
Claim 1: The regime's probability of victory over the extra-institutional challenger can be sufficiently small so that the challenger will always fight the regime, even if the challenger is offered exactly what she demands (e). This occurs when the following condition on p is satisfied:

$$p \leq p^f, p^f = 1 - \frac{c_E}{(1-w)}$$

When the regime is extremely weak, its probability of victory is so low that the extra-institutional challenger will fight regardless of the regime's offer of public and private goods. Even if the leader of the regime were to give the challenger her ideal offer of e , the perks of incumbency are too great and the costs of conflict are too low to deter the challenger from fighting. Because states are simply too weak to buy off an extra-institutional challenger, a fight will always occur. The threshold on regime strength at which the extra-institutional challenger cannot be deterred is called p^f . If a regime's

probability of victory is equal to or less than p^f , then the government cannot appease the extra-institutional challenger with any possible offer of public and private goods.

FIGURE 2.1: The Effect of Regime Inclusiveness on p^f



Comparative statics offer some additional information about this threshold. As p^f is equal to $1 - \frac{c_E}{(1-w)}$, p^f is highest when the challenger's costs of conflict are very low and when the regime is very exclusive. When the costs of conflict increase, the extra-institutional challenger must be increasingly confident about her chances in a fight for her to initiate conflict and absorb these costs. The relationship between w and p^f is also negative. In inclusive regimes, those excluded from the winning coalition are left out of only a small share of the small part of the budget allocated toward private goods. Additionally, they receive their share of the large portion of government resources allocated toward public goods. This low cost of exclusion increases the challenger's opportunity cost for conflict so that, all else being equal, extra-institutional challengers must have more confidence to initiate a fight against an inclusive government than they

must to fight against an exclusive regime. The negative relationship between regime inclusiveness and the threshold at which the extra-institutional challenger will always fight is clearly illustrated in Figure 2.1 above.

Claim 2: Given $p \geq p^f$, the extra-institutional challenger will not fight against the regime so long as the regime's provision of public goods falls within the following range around the extra-institutional challenger's ideal point:

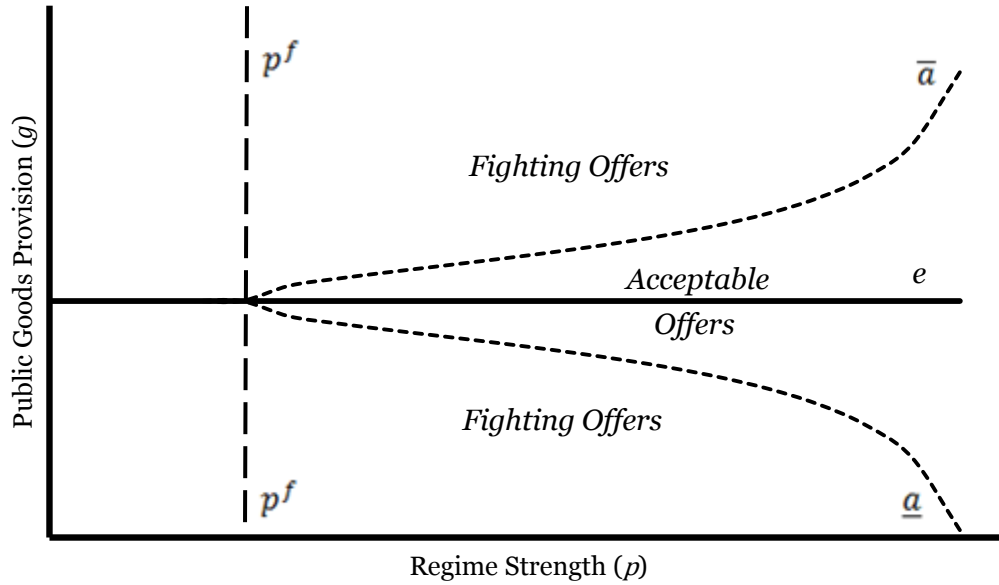
$$\underline{a} \leq g \leq \bar{a} \quad a = e \pm \sqrt{\frac{c_E}{1-p} - (1-w)}$$

When the regime is not so weak that it will be challenged regardless of how resources are allocated, two types of offers emerge. First, incumbents and rivals can choose to make a *fighting offer* (g_f), which is any offer that will cause the extra-institutional challenger to initiate a fight. Second, the candidates for executive office can make an *acceptable offer* (g_a), which is any offer that the extra-institutional challenger will accept without a fight. Offers are acceptable when they fall within the range $\underline{a} \leq g \leq \bar{a}$ and offers are fighting offers when they lie outside this range around e .

If regimes are sufficiently weak to satisfy the condition $p \leq p^f$, then all offers are fighting offers (Claim 1). No range of acceptable offers exists around the extra-institutional challenger's ideal point. However, as the regime strengthens, the extra-institutional challenger becomes less willing to fight the regime and will start to settle for a small range of favorable offers. When regime strength reaches $p = p^f$, the extra-institutional challenger will only accept an offer of e , and as the regime strengthens beyond this threshold the range of acceptable offers expands to include distributions of public and private goods that stray farther from the challenger's ideal point. This range

of acceptable offers, $\underline{\alpha} \leq g \leq \bar{\alpha}$, grows larger with the challenger's cost of conflict (c_E), regime strength (p), and the inclusiveness of the regime (w).

FIGURE 2.2: Regime Strength and Types of Offers



Having found that the extra-institutional challenger's decision to accept or fight the regime reduces to the location of the leader's offer within or beyond the range of acceptable offers, I now turn to the decision made by the pivotal selector. Because the pivotal selector has knowledge of the extra-institutional challenger's preferences, the pivotal selector knows whether an offer will preserve peace or provoke a fight. Of course, the challenger's decision to accept or fight the regime alters the pivotal selector's utility for the incumbent and rival offers of public and private goods.

The pivotal selector's decision will occur under one of three conditions. First, offers from both the incumbent and rival may belong to the set of acceptable

offers $(g_I, g_R \in g_a)$. Under this condition, the pivotal selector knows that neither offer will cause the extra-institutional challenger to fight. Second, both offers may belong to the set of fighting offers $(g_I, g_R \in g_f)$. Here, the pivotal selector chooses an offer of public and private goods knowing that either choice will certainly result in an extra-institutional challenge. Finally, the pivotal selector may need to make a choice between one fighting offer and one acceptable offer. The pivotal selector's choice under each of these conditions is solved for under Claims 3 and 4.

Claim 3: When offers from the incumbent and rival are either both acceptable $(g_I, g_R \in g_a)$ or both fighting $(g_I, g_R \in g_f)$, the pivotal selector prefers the offer that is closest to her ideal point (w) .

Given that the pivotal selector's choice will not determine whether the regime faces an extra-institutional challenge, the pivotal selector simply chooses the offer that falls closest to her ideal point. Under the condition that both offers are acceptable, the pivotal selector need not worry about the desires of the extra-institutional challenger. A fight will not occur and the pivotal selector may choose the offer she prefers with no risk of invoking a fight. When both offers will result in a fight, the costs and risks associated with conflict are the same regardless of what offer is chosen. For this reason, the pivotal selector can only choose the offer closest to her ideal point and hope for regime victory.

The pivotal selector's decision is not so easy when one offer will be accepted by the extra-institutional challenger but the other proposal will draw a fight. If the pivotal selector's ideal point falls within the range of acceptable offers $w \in g_a$, then she will choose the acceptable offer, receive the exact distribution of public and private goods that she desires, and avoid the costs and risks of an extra-institutional challenge to the regime. However, I will prove below that the pivotal selector will never be in this

situation. If the pivotal selector's favored offer of w is acceptable to the challenger, then a candidate will never make a less preferable fighting offer. This cannot occur in equilibrium.

Instead, the pivotal selector will only face one fighting offer and one acceptable offer when its ideal offer of w will draw a fight ($w \in g_f$). Here, the pivotal selector is forced to choose between her ideal offer, which will surely result in an extra-institutional challenge to the regime, and a less favorable offer that will be accepted by the challenger. Conflict is costly, and should the extra-institutional challenger win, the pivotal selector faces the possibility of exclusion from private goods under the new regime. When will the pivotal selector prefer her ideal offer despite the fight that will ensue, and when will she choose the less favorable offer so as to maintain peace?

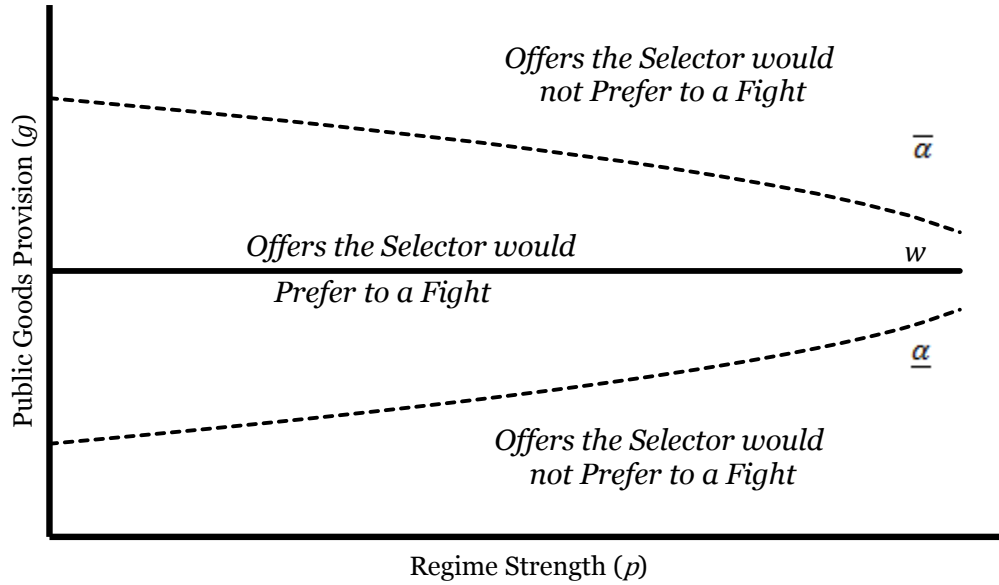
Claim 4: When one candidate for executive office makes a fighting offer at w ($w \in g_f$) and the other makes an offer that will draw no challenge (g_a), the pivotal selector chooses g_a only when it falls within the following range around her ideal point w :

$$\underline{\alpha} \leq g_a \leq \bar{\alpha} \quad \alpha = w \pm \sqrt{(1-p)\{(w-e)^2 + 1-e\} + c_s}$$

Comparison of the pivotal selector's utilities for the fighting and acceptable offers results in an important range around her ideal point w . If the acceptable offer is sufficiently close to her ideal point, then the pivotal selector will forego her ideal distribution of public and private goods and instead choose the offer that the extra-institutional challenge will accept. If the acceptable offer falls outside this range around her ideal point, then she is asked to make too great a compromise. Under this condition, she will choose her ideal offer and brace for an extra-institutional challenge, rather than accept a less favorable offer that will preserve the peace. Let the range of offers which

the pivotal selector prefers to w when w would draw a fight ($w \in g_f$) be denoted as $(\underline{\alpha} \leq g_\alpha \leq \bar{\alpha})$, as defined by Claim 4.

FIGURE 2.3: Regime Strength and Selector Preferences



Comparative statics reveal the determinants of the pivotal selector's willingness to compromise for peace. The pivotal selector is more willing to compromise when the range of offers which she will prefer to a fight is large. As this range of offers shrinks, she becomes less willing to accept offers that stray from her ideal offer of w . First, the pivotal selector becomes less willing to compromise as regime strength increases. This is intuitive because as the pivotal selector becomes more confident in the chances of regime victory over an extra-institutional challenger, she becomes less willing to select less favorable offers to keep the peace. Knowing that the probability of regime victory is high, she insists on an offer that is very close to her ideal distribution of public and private goods. Second, the pivotal selector is more likely to compromise when her costs

of conflict (c_S) are high. The pivotal selector is deterred from fighting by high costs. For this reason, the range of offers which she will choose to keep the peace increases when the state is likely to expend a large share of its resources toward defending itself from the challenge. Interestingly, these high costs grant the incumbent and rival more flexibility to appease the extra-institutional challenger with an acceptable offer. Finally, the pivotal selector is less willing to choose peace over her ideal offer of public and private goods when e is great. This suggests that the demands of the extra-institutional challenger shape the actions taken by the pivotal selector. If the extra-institutional challenger demands an inclusive regime with more public goods spending (e is large), then the pivotal selector becomes less willing to compromise for peace. This is because the consequences of losing this extra-institutional challenge are not as grave relative to the consequences of losing against a challenger who wishes to impose a regime that will provide private goods for an exclusive ruling coalition. All else being equal, pivotal selectors prefer losing to a challenger who desires more public goods spending to losing to a challenger who wants to reduce public goods provision in favor of exclusive private goods for the members of a new government. She is more willing to choose the offer that will lead to conflict when the challenger prefers an inclusive regime because the costs of exclusion she would pay should the challenger win are relatively low.

In summary, the preferences of the extra-institutional challenger and the pivotal selector create two ranges that candidates for executive office must consider while making offers of public and private goods. First, the extra-institutional challenger will not fight if the offer chosen by the pivotal selector is sufficiently close to the challenger's ideal point ($\underline{a} \leq g \leq \bar{a}$). Again, this range exists only when the regime is strong enough to deter the challenger by offering the challenger exactly what she wants ($p \geq p^f$). The

second range exists around the ideal point of the pivotal selector. If one candidate makes an offer that will cause the extra-institutional challenger to fight and the other candidate does not, the pivotal selector only chooses the offer that preserves the peace if it is sufficiently close to her own ideal point ($\underline{\alpha} \leq g \leq \bar{\alpha}$). However, the pivotal selector is only in this position when two conditions are true. First, acceptable offers must exist ($p \geq p^f$). Second, the regime cannot be so strong that the extra-institutional challenger will not fight the regime even when it offers the pivotal selector her ideal offer ($\underline{a} \leq w \leq \bar{a}$). If the regime is strong enough to pass this threshold, then the pivotal selector need not compromise her ideal point to preserve peace. This second threshold on regime strength is p^w .⁹

Claim 5: When a regime is sufficiently strong so that the extra-institutional challenger does not fight when it offers the pivotal selector's ideal offer of w ($w \in g_a$), then the pivotal selector will always prefer the offer closest to w . This threshold on regime strength is eclipsed when:

$$p \geq p^w \quad p^w = 1 - \frac{c_E}{(w-e)^2 + 1 - w}$$

The next step is to determine what the incumbent and rival will offer given the strength of the state in these three ranges of state strength: (1) $p \leq p^f$, (2) $p^f \leq p \leq p^w$, and (3) $p \geq p^w$. These solutions will provide one SPNE for each of the three ranges over state strength.

SPNE 1: This equilibrium exists when $p \leq p^f$. The incumbent and rival offer w . The pivotal selector chooses the incumbent. The extra-institutional challenger fights the incumbent.

⁹ One can conceptualize p^w as the point at which the extra-institutional challenger's range of acceptable offers expands to include the pivotal selector's ideal point ($w \in g_a$).

When the regime is very weak, the extra-institutional challenger will always fight. Following Claim 3, the pivotal selector will always choose the offer closest to her ideal point of w if both offers will result in an extra-institutional challenge. Consequently, the rival makes the pivotal selector's ideal offer, but the incumbent will also offer w and stay in power. The pivotal selector can do no better from leadership change when this is true, regardless of what is offered by the rival.¹⁰ Unfortunately for the incumbent, an extra-institutional challenge will follow the incumbent's successful bid for prolonged leadership tenure.¹¹

This SPNE characterizes regime behavior only when regimes are at their weakest. As regimes strengthen, they gain the ability to buy off extra-institutional challengers (a range of acceptable offers exists) and the pivotal selector prefers some of these acceptable offers to an offer at her ideal point of w . These developments alter the logic of public and private goods provision, resulting in a second equilibrium.

Once regime strength eclipses p^f , a second SPNE occurs. Here, a range of acceptable offers exists, which is to say that the extra-institutional challenger will be

¹⁰ The research question of interest is not whether the incumbent or rival will win if they offer the same package of public and private goods, but how the institutional pressure from the rival and the extra-institutional pressure from the challenger will steer the incumbent's provision of public and private goods. For this reason, I make the technical claim that the incumbent stays in power unless the pivotal selector's utility for the rival's offer is *strictly greater* than the utility to be derived from the incumbent's offer. This does not change the equilibrium. It only serves to simplify the equilibria since this question is irrelevant to the puzzle explored here.

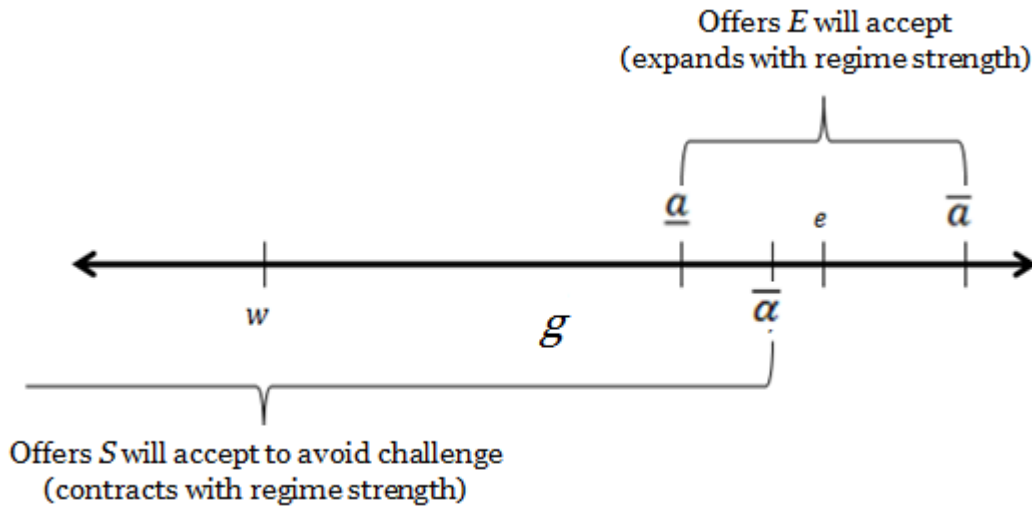
¹¹ This equilibrium requires one technical assumption. The leader's costs of conflict can never be so great that the incumbent would rather lose office to avoid the fight than continue in office to take her chances in a fight against an extra-institutional challenger ($c_L \leq p$). Many contemporary anecdotes offer some face validity for this simplifying assumption. Sri Lankan politicians, continued to compete for power despite knowing that they would probably spend their tenures fighting the Liberation Tigers of Tamil Eelam. The government of Sudan saw a number of leadership changes during the long civil war with the south. Both examples suggest executive office remains lucrative, even when the likelihood of an extra-institutional challenge is very high.

appeased by offers at or near her ideal point of e . When regime strength is only slightly greater than p^f , the pivotal selector is also very willing to compromise (the range α is large) because the regime's chances of victory remain relatively low. Under these conditions, these ranges of offers overlap so that the pivotal selector will compromise and choose some offers that are also acceptable to the extra-institutional challenger to her own ideal point of w . This relationship between the ranges a and α is illustrated in Figure 2.4 below.

SPNE 2: This equilibrium exists when $p^f \leq p \leq p^w$. When the pivotal selector wants more public goods provision than the extra-institutional challenger ($e \leq w$), the incumbent and rival offer \underline{a} . When the pivotal selector wants less public goods provision than the extra-institutional challenger ($e \geq w$), the incumbent and rival offer \bar{a} . The pivotal selector chooses the incumbent and the extra-institutional challenger accepts the incumbent.

While regime strength makes the extra-institutional challenger more willing to accept an offer, it causes the pivotal selector to become less willing to compromise. In the terms of the ranges discussed above, as p increases, the range α contracts around w while the range a expands from e . These effects cause these ranges to always overlap. When $p^f \leq p \leq p^w$, some subset of the offers the extra-institutional challenger is willing to accept will fall in the range of those offers the pivotal selector will prefer to a fight. Knowing this, the incumbent makes the acceptable offer that is closest to the pivotal selector's ideal point. When ($e \leq w$), this offer is the highest acceptable offer of public goods, which is \bar{a} . If ($e \geq w$), as in Figure 2.4, then this offer is the lowest acceptable offer of public goods (\underline{a}).

FIGURE 2.4: Challenger and Selector Preferences



As regimes strengthen, the range of acceptable offers (a) expands. This causes \bar{a} or \underline{a} to be closer to the extra-institutional challenger's ideal point when regimes are weak and closer to the pivotal selector's ideal point when regimes are strong. The important substantive implication to be drawn from this is that offers of public and private goods will reflect the desires of the extra-institutional challenger when regimes are relatively weak, but as regimes strengthen leaders gradually shift their offers toward the demands of the pivotal selector.

SPNE 3: This equilibrium exists when $p \geq p^w$. The incumbent and rival offer w . The pivotal selector chooses the incumbent. The extra-institutional challenger accepts the regime.

If regime strength rises so $p \geq p^w$, the pivotal selector's ideal point of w is included in the range of acceptable offers ($\underline{a} \leq w \leq \bar{a}$). This means the extra-institutional challenger will not fight if the pivotal selector chooses an offer of public and

private goods at her ideal point. In this case, the incumbent will always propose w , the pivotal selector will choose the incumbent, and the extra-institutional challenger will accept the regime. Among these strong states, packages of public and private goods will reflect the demands of the pivotal selector because the extra-institutional challenger is too weak to make any credible threats to the regime.

The three sub-game perfect Nash equilibria presented above can be summarized as follows. When the state is so weak that an extra-institutional challenge will *always* occur, government spending should reflect the inclusiveness of the regime (w) and conflict should follow. When the state is sufficiently strong to deter the challenger from fighting but not so strong that the challenger will accept exactly what the pivotal selector desires, government spending will occur in a zone of compromise between the ideal points of the pivotal selector and the extra-institutional challenger on the threshold of what the extra-institutional challenger is willing to accept (\bar{a} or \underline{a}). Finally, when the regime is so strong that the extra-institutional challenger must accept an offer at the pivotal selector's ideal point, government spending will occur according to the inclusiveness of the regime (w). Therefore, the calculus of public and private goods provision is largely decided by the strength of the regime, which determines whether regimes will alter spending to account for extra-institutional challengers, and the inclusiveness of the regime, which determines the ideal point of the pivotal selector.

Empirical Implications

The model presented above results in a number of testable hypotheses about the relationship between public goods provision and regime stability. This section

introduces four hypotheses related to patterns of public and private goods provision. These *spending hypotheses* are tested in Chapter 3. Five more hypotheses examine the relationship between regime spending and the occurrence of extra-institutional challenges to regimes. These *stability hypotheses* are assessed in Chapter 4.

As shown in the previous section, regimes alter the distribution of public and private goods to appease the extra-institutional challenger only when regime strength falls within the range $p^f \leq p \leq p^w$ (Equilibrium 2). This range tells us when we should expect regime spending to deviate from the ideal point of the pivotal selector, but it does not tell us whether regimes will use more or less public goods provision to appease the challenger. Following Equilibrium 2, regimes will use more public goods provision in this range of regime strength if the challenger demands more public goods than the pivotal selector ($w < \underline{a} < e$) and the regime provides less public goods when the challenger wants more private goods than the pivotal selector ($e < \bar{a} < w$). To generate empirical predictions about how government spending on public and private goods will deviate over this range of regime strength, it is necessary to elucidate the preferences of the extra-institutional challengers that various regimes are likely to face. More specifically, we must determine whether regimes are more vulnerable to challengers who demand more or less public goods provision than the pivotal selector.

This can be done with some comparative statics on the threshold at which extra-institutional challenges become unviable, which is p^w . When regime strength is below p^w , the pivotal selector's ideal point falls outside the range of offers the extra-institutional challenger is willing to accept ($w \in g_f$), forcing the regime to bend to the demands of the challenger. In other words, p^w tells us how strong a regime must be to

be able to spend on its pivotal selector without risking an extra-institutional challenge. When p^w is high, the regime must be stronger before the challenger will accept government spending at the pivotal selector's ideal point. Challengers pose the least threat when p^w is very low. Here, regimes need not be strong for the challenger to accept the pivotal selector's ideal distribution of public and private goods. This threshold is defined below (also see Claim 5):

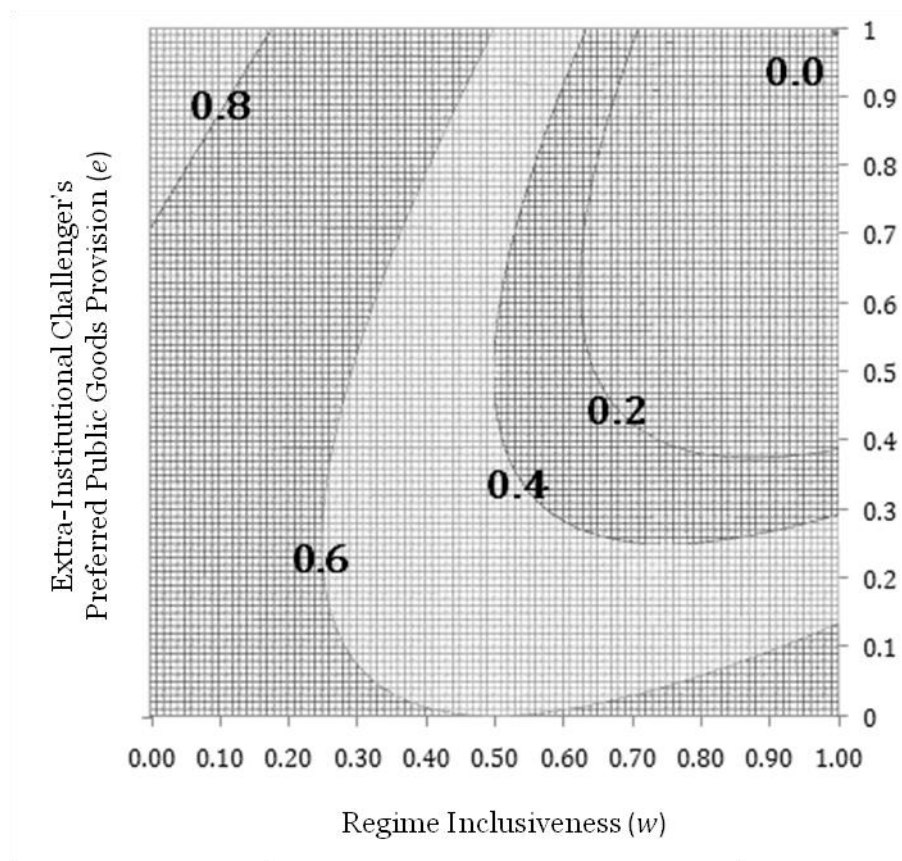
$$p^w = 1 - \frac{c_E}{(w - e)^2 + (1 - w)}$$

Note that the extra-institutional challenger's ideal point is a determinant of this threshold. Extra-institutional challengers are more easily deterred (which is to say that p^w is lower) when the difference between the ideal points of the extra-institutional challenger and the pivotal selector is small. For example, an inclusive regime ($w = 1$) is not likely to face a viable threat from a challenger who prefers a high level of public goods provision. Both the pivotal selector and the extra-institutional challenger desire public goods, so the challenger's marginal gains from winning a challenge are too low to justify the costs of conflict. p^w increases with the distance between the ideal points of the pivotal selector and extra-institutional challenger so that, all else being equal, regimes must be much stronger to deter extra-institutional challengers whose preferences are farther from those of the pivotal selector.

The contour plot provided below illustrates the interactive relationship between regime inclusiveness (w), the preference of the extra-institutional challenger (e), and the threshold of regime strength at which an extra-institutional challenge becomes unviable (p^w). The figure shows p^w is lowest in the scenario described above. Inclusive regimes face the least threat from challengers who prefer high levels of public goods

provision. Whether a challenge is successful or not, the state will spend most of its resources on public goods and the cost of exclusion is very negligible because little is being spent on private goods for the included. Instead, inclusive regimes are most likely to be challenged by those demanding more private goods. The parabolic bands illustrated by the contour plot indicate inclusive regimes must be much stronger to deter challengers who prefer lower levels of public goods provision.

FIGURE 2.5: Regime Strength Required to Deter Challenger (p^w)



Relative to inclusive regimes, exclusive regimes must be much stronger before extra-institutional challengers will accept the regime. This is due to the high cost of exclusion from these regimes. Exclusive regimes allocate most of their resources toward

private goods for the small body of citizens with power over executive selection, so the marginal benefit of being a member of this coalition is very great. A challenger desiring private goods will fight against the regime so that she can allocate government resources to her own exclusive group of supporters.¹² However, these regimes face the greatest threat from extra-institutional challengers who demand increased public goods spending. The contour in the upper-left corner of the plot shows extra-institutional challengers are hardest to deter when a challenger demanding public goods provision faces an exclusive regime.

Semi-inclusive regimes are in an interesting position. The preference of the pivotal selector incentivizes the leaders of these regimes to spend moderate amounts on public and private goods. This makes them slightly less vulnerable to extra-institutional challengers who also demand an intermediate level of public goods provision, but it exposes them to challengers who demand either very high or very low levels of public goods. The threat posed by the challenger is approximately uniform whether the challenger demands high levels of public or private goods.

The Spending Hypotheses

Having identified the preferences of regimes' most viable challengers, some testable hypotheses about regime spending can be generated. First, inclusive regimes face the greatest threat from challengers who prefer more private goods. As shown

¹² The contour plot suggests exclusive regimes must maintain a high level of strength to deter challengers who want to replace the regime with a new exclusive regime. We certainly observe these kinds of changes in systems with successive military coups (Haiti, for example) or cases where one style of autocracy replaces another (Russian Revolution).

above, challenges from those who demand public goods are unviable, even at very low levels of regime strength. Therefore, if inclusive regimes alter spending to account for extra-institutional challengers, they will do so by *decreasing* public goods provision. The result is a non-monotonic relationship. When inclusive regimes are very weak (Equilibrium 1) and very strong (Equilibrium 3), these regimes will provide the high level of public goods demanded by the pivotal selector. Inclusive regimes of intermediate strength decrease public goods provision and appease the extra-institutional challenger by spending \bar{a} .

H1: The relationship between state strength and public goods provision is non-monotonic among inclusive regimes. Public goods provision is highest when states are so weak that they will always be challenged and so strong that they will never be challenged. Inclusive regimes of intermediate strength spend less on public goods provision.

Figure 2.6 illustrates the implications for public goods provision in inclusive regimes. When regimes are very weak, they will always be challenged so they can do no worse by providing the high level of public goods demanded by the pivotal selector. However, once the extra-institutional challenger can be dissuaded from fighting ($p \geq p^f$), the level of public goods provision drops sharply to the highest level that the challenger will accept (\bar{a}). As state strength increases, \bar{a} also increases until the state is so strong that the challenger is compelled to accept the high level of public goods demanded by the pivotal selector. Once this threshold is passed ($p \geq p^w$), the regime will provide public goods according to the preference of the pivotal selector.

FIGURE 2.6: Strength and Spending in Inclusive Regimes

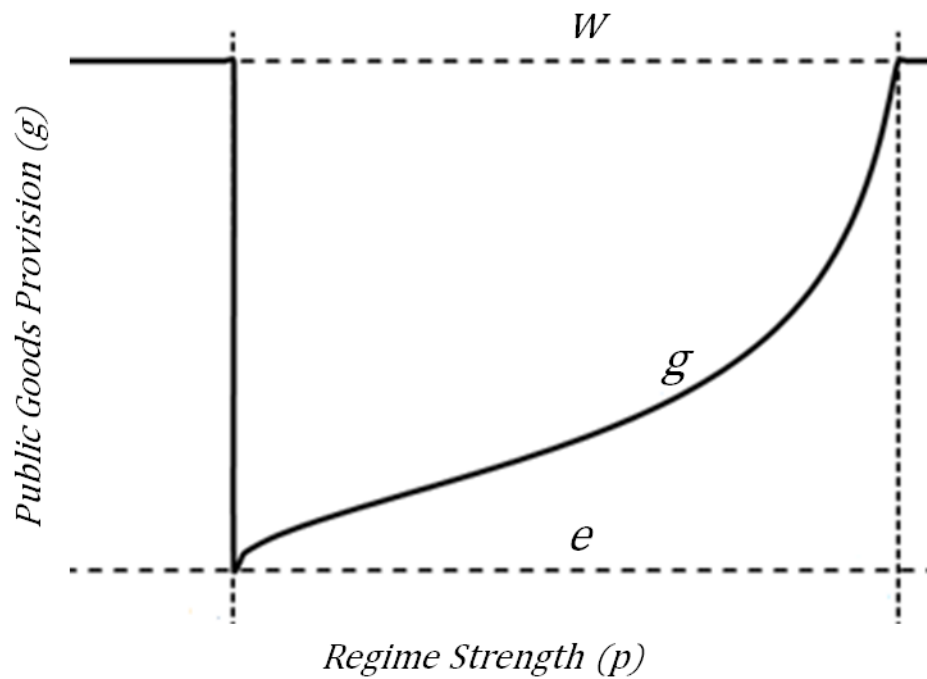
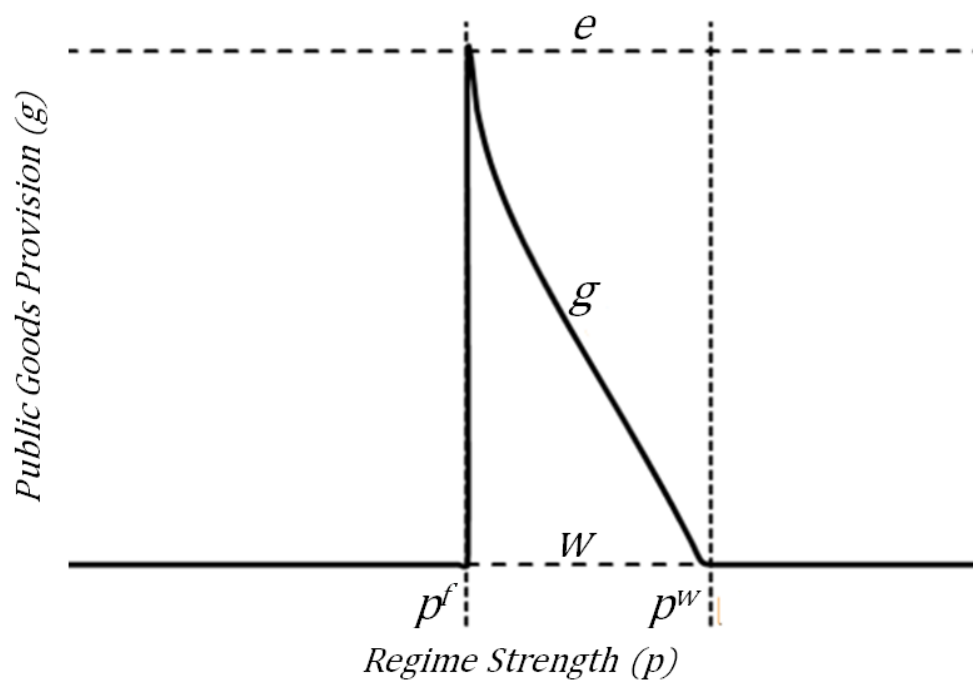


FIGURE 2.7: Strength and Spending in Exclusive Regimes



H2: The relationship between state strength and public goods provision is non-monotonic among exclusive regimes. Public goods provision is lowest when states are so weak that they will always be challenged and so strong that they will never be challenged. Exclusive regimes of intermediate strength spend more on public goods provision.

In exclusive regimes, the most viable extra-institutional challenger prefers a greater share of government resources to be allocated toward public goods, but the pivotal selector benefits more from private goods provision. If the challenger will fight regardless of what the regime spends (Equilibrium 1), the state does no worse by giving the pivotal selector exactly what she wants. As soon as the state is strong enough to buy off challenger support, the pivotal selector will tolerate a spike in public goods spending so as to avoid conflict against a strong challenger. This allows the regime to *increase* public goods spending to the lower threshold of what the extra-institutional challenger will accept (\underline{a}). Of course, the challenger's willingness to fight and the pivotal selector's willingness to compromise wane as the state strengthens, so public goods spending falls. Once the state is sufficiently strong so that the challenger will not fight even if the pivotal selector gets her preferred amount of private goods, the state returns to spending little on public goods provision. This is illustrated in Figure 2.7 above.

When the pivotal selector has intermediate preferences over public goods provision, they are equally likely to be challenged by those who prefer more or less public goods provision. Consequently, these regimes are not consistently threatened by challengers with the same preferences. Because they will spend more on public goods when they face some challengers and more on private goods when they face other challengers, the model predicts challengers to have no consistent and generalizeable effect on semi-inclusive regimes.

H3: There is no relationship between public goods provision and the strength of the regime among semi-inclusive regimes.

These hypotheses call into question the conventional wisdom about the relationship between regime type and public goods provision. Previous research finds a positive relationship between inclusive government and public goods spending, but this model suggests that this is not always the case. This relationship should only exist when regimes are at levels of strength that allow them to spend according to the preference of their institutional audiences (Equilibria 1 and 3). Regimes are driven toward intermediate levels of public goods spending when they must insulate themselves from extra-institutional threats (Equilibrium 2). Inclusive regimes spend less, exclusive regimes spend more, and these pressures reduce the marginal effect of regime inclusiveness on public goods provision.

H4: The marginal effect of regime inclusiveness on public goods provision is non-monotonic. Among the weakest and strongest regimes, inclusiveness has a positive effect on public goods provision. Among regimes of intermediate strength, inclusiveness has little, if any, effect on public goods provision.

The Stability Hypotheses

Given these incentives for public and private goods provision, when are states at risk of suffering extra-institutional challenges, such as coup and civil war? The model specified above allows for challenges to occur in equilibrium only when regimes are so weak that regimes can do nothing to prevent them ($p \leq p^f$). When regime strength surpasses this threshold, challenges do not occur because (1) under Equilibrium 2

leaders buy challenger support by adjusting public and private goods expenditures to make an acceptable offer or (2) under Equilibrium 3 regimes are too strong for a challenger to consider initiating a conflict against the regime, regardless of how the regime allocates its resources. Many civil war and coup scholars (Fearon and Laitin 2003, Collier and Hoeffler 2004, Londregan and Poole 1990) predict the weakest regimes to be at the highest risk for extra-institutional challenges, but this prediction does not support the existence of any kind of relationship between regime spending and extra-institutional challenges. When regimes are weak enough to satisfy ($p \leq p^f$), any level of public and private goods provision will invoke an extra-institutional challenge (See Claim 1). Regimes are simply too weak to buy their way out of an inevitable conflict.

H5: Among the weakest regimes ($p \leq p^f$), there is no relationship between public goods provision and the occurrence of extra-institutional challenges to the regime.

This model does not allow for conflict to occur against regimes when regimes might have been able to use public or private goods spending to avoid it because it assumes perfect information is shared by all actors involved. All actors know the exact threshold that determines whether a challenger will respond to an offer by fighting or accepting the regime. The incumbent and challenger are also in perfect agreement about the regime's probability of victory should an extra-institutional challenge occur. The simplifying assumption of perfect information is useful for elucidating the basic calculus of public and private goods provision, but it also allows this simplified strategic environment to be considerably less conflict-prone than those which exist in reality.

If the assumptions of the model are relaxed so that the players can misperceive the parameters mentioned above, a leader might miscalculate how she can best allocate

resources to placate the extra-institutional challenger. For example, leaders of exclusive regimes know they must increase public goods to buy the support of viable challengers, but if leaders overestimate the regime's probability of victory then they will mistakenly believe challengers to be less willing to initiate conflict, and therefore more willing to settle for a compromise. The leader will believe she is making the acceptable offer of \underline{a} described under Equilibrium 2, but in fact her offer of public goods is too low ($\underline{a} - \epsilon$) so that it is a fighting offer. In this way, uncertainty can contribute to inadvertent miscalculation, which results in an extra-institutional challenge that could have been avoided with slightly more public goods provision. This logic predicts the following relationships between public goods provision and the initiation of extra-institutional challenges:

H6: Inclusive regimes of intermediate strength are more likely to suffer extra-institutional challenges when public goods spending is high.

H7: Exclusive regimes of intermediate strength are more likely to suffer extra-institutional challenges when public goods spending is low.

H8: Public goods provision does not predict the occurrence of extra-institutional challenges among semi-inclusive regimes.

Simply stated, extra-institutional conflict will occur if leaders of regimes of intermediate strength¹³ inaccurately predict the range of acceptable offers and mistakenly propose a fighting offer. Leaders of inclusive regimes know they face challengers who prefer lower levels of public goods provision, so they are most likely to face extra-institutional challenges if they do not decrease public goods spending by a

¹³ By "intermediate strength" I mean those to which Equilibrium 2 applies. These regimes are strong enough that extra-institutional challenges are not inevitable (See Hypothesis 6) but not so strong that challenges are impossible (Hypothesis 9).

sufficient amount. The risk of overestimating what the extra-institutional challenger will accept increases with public goods provision, so I predict a negative relationship between public goods provision and extra-institutional challenges for inclusive regimes of intermediate strength. Inclusive regimes that spend less on public goods should be the least likely to suffer coup and civil war, *ceteris paribus*. The opposite logic applies to exclusive regimes. These regimes are compelled to spend more on public goods as they attempt to buy the support of their most likely challengers, so they are at risk of underestimating what they must spend on public goods and drawing a challenge. Finally, semi-inclusive regimes may face viable extra-institutional challengers who demand more or less public goods provision. Their challengers do not have consistent demands, so no generalizeable relationship is predicted to exist between public goods provision and extra-institutional challenges to semi-inclusive regimes.

H9: Among the strongest regimes ($p \geq p^w$), there is no relationship between public goods provision and the occurrence of extra-institutional challenges to the regime.

One final hypothesis applies to the stability of the strongest regimes. Once regimes reach a high threshold of strength ($p \geq p^w$), they will not be challenged regardless of how they spend. Therefore, we should not expect a significant relationship between patterns of government spending and the initiation of extra-institutional challenges at this extreme of regime strength.

Discussion

This chapter builds on extant models of government spending and regime stability by considering the effect of the presence of an extra-institutional challenger. The model results in a number of testable implications about the relationships between the strength of the state, the inclusiveness of state institutions, government spending, and regime stability. It suggests that the logic of public and private goods provision is not determined solely by the inclusiveness of a regime's institutions for executive selection. Instead, the calculus of government spending varies with the viability of challengers to regimes. This dynamic logic predicts public and private goods provision to follow predictable patterns of variation across regimes and within regimes over time. Additionally, it suggests a link between the provision of public and private goods and regime survival. Nine hypotheses were derived from the model. Four spending hypotheses (*H1-H4*) are tested in the next chapter. The five stability hypotheses (*H5-H9*) are tested in Chapter 4.

Formal Appendix

Claim 1: The regime's probability of victory over the extra-institutional challenger can be sufficiently small so that the extra-institutional challenger will always fight the regime, even if the challenger is offered exactly what she demands (e). This occurs when the following condition on p is satisfied:

$$p \leq p^f, p^f = 1 - \frac{c_E}{(1-w)}$$

Proof: Using backward induction, we begin at the last move of the game, which is the challenger's decision to fight or accept the regime. We compare the utilities $u_E(a) = -(e - g_I)^2 - (1 - w)$ and $EU_E(f) = p\{-(e - g_I)^2 - (1 - w)\} - c_E$ when $e = g_I$. The inequality is reduced for p and the result is that $EU_E(f) \geq u_E(a)$ only when $p \leq 1 - \frac{c_E}{(1-w)}$. This threshold is named p^f .

Claim 2: Given $p \geq p^f$, the extra-institutional challenger will not fight against the regime so long as the regime's provision of public goods falls within the following range around the extra-institutional challenger's ideal point:

$$\underline{a} \leq g \leq \bar{a} \quad a = e \pm \sqrt{\frac{c_E}{1-p} - (1-w)}$$

Proof: The inequality offered above is reduced for values of g that motivate the extra-institutional challenger to fight. One change is made to the inequality. Following Claim 1, p is constrained so $p \geq p^f$. $EU_E(f|p \geq p^f) \geq u_E(a|p \geq p^f)$ is reduced for g with the following result. The inequality is true when $g \geq \bar{a}$ or $g \leq \underline{a}$. Offers falling within these bounds are acceptable offers ($\underline{a} \leq g_a \leq \bar{a}$) and those that do not are fighting offers (g_f).

Claim 3: When the offers from the incumbent and rival are either both acceptable ($g_I, g_R \in g_a$) or both fighting ($g_I, g_R \in g_f$), the pivotal selector prefers the offer that is closest to her ideal point.

Proof: When both offers presented to the pivotal selector are acceptable offers, the following utility is compared: $u_S(s_I | g_I \in g_a) \geq u_S(s_R | g_R \in g_a)$. Each offer will be accepted so this becomes a comparison of $-(w - g_I)^2 \geq -(w - g_R)^2$. The pivotal selector's utility for s_I is greater when g_I falls closer to w than g_R . When both offers are fighting offers, the following utility is compared: $u_S(s_I | g_I \in g_f) \geq u_S(s_R | g_R \in g_f)$, which is equal to $p(-(w - g_I)^2 + (1 - p)\{-(w - e)^2 - (1 - e)\} - c_S) \geq p(-(w - g_R)^2 + (1 - p)\{-(w - e)^2 - (1 - e)\} - c_S)$. This also reduces to a comparison of $-(w - g_I)^2 \geq -(w - g_R)^2$ and the pivotal selector's utility for s_I is greater when g_I falls closer to w than g_R .

Claim 4: When one candidate for executive office makes a fighting offer at w ($w \in g_f$) and the other makes an offer that will draw no challenge (g_a), the pivotal selector chooses g_a only when it falls within the following range around her ideal point w :

$$\underline{\alpha} \leq g_a \leq \bar{\alpha} \quad \alpha = w \pm \sqrt{(1 - p)\{(w - e)^2 + 1 - e\} + c_S}$$

Proof: Here, the utilities compared are $u_S(s_f | g_f) \geq u_S(s_a | g_a)$ where s_f is the decision to choose the fighting offer and s_a is the decision to choose the acceptable offer. g_f is set equal to w . $(1 - p)\{-(w - e)^2 - (1 - e)\} - c_S \geq -(w - g_a)^2$ is reduced for g_a . There are two solutions. $u_S(s_f | g_f) \geq u_S(s_a | g_a)$ if $g_a \geq w + \sqrt{(1 - p)\{(w - e)^2 + 1 - e\} + c_S}$ and $g_a \leq w - \sqrt{(1 - p)\{(w - e)^2 + 1 - e\} + c_S}$. These values of g_a form the range $\underline{\alpha} \leq w \leq \bar{\alpha}$.

Claim 5: When a regime is sufficiently strong so that the extra-institutional challenger does not fight when it offers the pivotal selector's ideal offer of w , then the pivotal selector will always prefer the offer closest to w . This threshold on regime strength is eclipsed when:

$$p \geq p^w \quad p^w = 1 - \frac{c_E}{(w-e)^2 + 1 - w}$$

Proof: The extra-institutional challenger will not fight over an offer at w when the following inequality is satisfied: $u_E(a|g = w) \geq EU_E(f|g = w)$. This is solved for p and the solution is $p \geq 1 - \frac{c_E}{(w-e)^2 + 1 - w}$. This threshold is p^w .

SPNE 1: This equilibrium exists when $p \leq p^f$. The incumbent and rival offer w . The pivotal selector chooses the incumbent. The extra-institutional challenger fights the incumbent.

Proof: When $p \leq p^f$, all offers are fighting offers. Thus, the pivotal member of the winning coalition prefers the offer that is closest to her ideal point of w . Because the pivotal selector determines the outcome, the offers of the rival and incumbent must be considered together. Let the incumbent choose to offer w or $w + \varepsilon$ and assume $p \geq c_L$. The rival wins only if the pivotal selector's utility of her offer is strictly greater than that of the incumbent's. $u_I(g_I = w | g_R = w) = p - c_L$; $u_I(g_I = w | g_R = w + \varepsilon) = p - c_L$; $u_I(g_I = w + \varepsilon | g_R = w) = 0$; $u_I(g_I = w + \varepsilon | g_R = w + \varepsilon) = p - c_L$; $u_R(g_R = w | g_I = w) = 0$; $u_R(g_R = w + \varepsilon | g_I = w) = 0$; $u_R(g_R = w + \varepsilon | g_I = w + \varepsilon) = 0$; $u_R(g_R = w | g_I = w + \varepsilon) = p - c_L$. Regardless of what the incumbent offers, the rival can do no worse by offering w . Given that the rival offers w , the incumbent maximizes her utility by also offering w . Therefore, when $p \leq p^f$, the fully specified SPNE is: $g_I = w$; $g_R = w$; s_I ; f ; $p \geq c_L$, $p \leq p^f$.

SPNE 2: This equilibrium exists when $p^f \leq p \leq p^w$. When the pivotal selector wants more public goods provision than the extra-institutional challenger ($e \leq w$), the incumbent and rival offer \underline{g}_a . When the pivotal selector wants less public goods provision than the extra-institutional challenger ($e \geq w$), the incumbent and rival offer \overline{g}_a . The pivotal

selector chooses the incumbent and the extra-institutional challenger accepts the incumbent.

Proof: Here, the pivotal selector chooses between a fighting offer (g_f) and an acceptable offer (g_a) and $w \in g_f$. The fighting offer is w and the acceptable offer is \underline{a} when ($e \leq w$) and \bar{a} when ($e \geq w$). The utilities are: $u_I(g_I = w | g_R = w) = p - c_L$; $u_I(g_I = w | g_R = a) = 0$; $u_I(g_I = a | g_R = w) = 1$; $u_I(g_I = a | g_R = a) = 1$; $u_R(g_R = w | g_I = w) = 0$; $u_R(g_R = w | g_I = a) = 0$; $u_R(g_R = a | g_I = w) = 1$; $u_R(g_R = a | g_I = a) = 0$. Equilibrium exists when the incumbent plays a . The complete SPNE is $g_I = a, 0 \leq g_R \leq 1, s_I, a; p^f \leq p \leq p^w$.

SPNE 3: This equilibrium exists when $p \geq p^w$. The incumbent and rival offer w . The pivotal selector chooses the incumbent. The extra-institutional challenger accepts the regime.

Proof: When $p \geq p^w$, all offers are acceptable offers. Thus, the pivotal member of the winning coalition prefers the offer that is closest to her ideal point of w (Claim 3). Let the incumbent choose to offer w or $w + \varepsilon$. The payoffs for the incumbent are: $u_I(g_I = w | g_R = w) = 1$; $u_I(g_I = w | g_R = w + \varepsilon) = 1$; $u_I(g_I = w + \varepsilon | g_R = w) = 0$; $u_I(g_I = w + \varepsilon | g_R = w + \varepsilon) = 1$. The payoffs for the rival are $u_R(g_R = w | g_I = w) = 0$; $u_R(g_R = w + \varepsilon | g_I = w) = 0$; $u_R(g_R = w + \varepsilon | g_I = w + \varepsilon) = 0$; $u_R(g_R = w | g_I = w + \varepsilon) = 1$. Nash equilibria exist when $g_I = w$ and $g_R = w, w + \varepsilon$. Therefore, when $p \geq p^w$, the fully specified SPNE is: $g_I = w, 0 \leq g_R \leq 1, s_I, a; p \geq p^w$.

THE SPENDING HYPOTHESES

When and how do extra-institutional threats to regimes affect the allocation of government resources toward public and private goods? The formal model presented in Chapter 2 suggests two key concepts determine the nature of this relationship. First, the effect of extra-institutional threats on public and private goods provision is expected to vary with the *strength of the regime*. The weakest regimes will be challenged regardless of how resources are allocated because the regime's probability of victory over an extra-institutional challenger is very low. Given the inevitability of an extra-institutional challenge, incumbents can do no better by deviating from the demands of their institutional audiences. The incumbent will spend to win over the pivotal selector, which allows her to maintain power and brace for the imminent extra-institutional challenge (Equilibrium 1). A similar logic applies to the strongest regimes. When the probability of regime victory over an extra-institutional challenge is sufficiently high, incumbents can spend as they please without invoking a challenge. There is no need to consider the demands of unviable challengers so incumbents focus on winning the support of the pivotal selector so they can maintain power (Equilibrium 3).

Extra-institutional threats are predicted to alter the calculus of public and private goods provision only when regimes are at intermediate levels of strength where an extra-institutional challenge is neither inevitable nor unviable. Within this range of regime strength, government spending should reflect a compromise between the desires

of the pivotal selector and the demands of a viable extra-institutional challenger. Because victory against the regime is far from certain, the extra-institutional challenger becomes willing to accept the regime so long as its spending does not stray too far from her preferred distribution of public and private goods. The risk of regime defeat is high enough to cause the pivotal selector to prefer government spending that deviates from her preferences when this deviation is necessary to preserve peace (Equilibrium 2).

The *inclusiveness of the regime* predicts how regimes of intermediate strength are expected to alter public and goods provision to placate viable extra-institutional challengers. Regime inclusiveness is important because it decides the preferences of the pivotal selector and the regime's most likely challenger. When regimes are very inclusive, private goods spending is ineffective because any private goods provision is divided among a very large body of selectors. The pivotal selector prefers broadly-allocated public goods provision to her very small share of private goods from the government. Because these regimes are pressured to spend on public goods, their most likely extra-institutional challengers are those who wish to replace the regime with an exclusive government that will provide private goods to a small body of selectors. If inclusive regimes of intermediate strength are to buy the support of viable extra-institutional challengers, then we should observe a *decrease* in public goods provision over this range of regime strength.

In exclusive regimes, private goods provision is divided among a much smaller body of selectors. Here, private goods provision is effective because each selector receives a large share of these goods. Leaders have an incentive to concentrate on private goods for the exclusive set of selectors, so these regimes are most likely to be challenged by those who demand inclusive government and public goods provision.

When these regimes need to placate their extra-institutional challengers, they are expected to *increase* public goods provision.

Selectors in semi-inclusive regimes demand intermediate levels of public and private goods provision. This leaves these regimes vulnerable to multiple types of extra-institutional challengers. Extra-institutional challengers may demand more public goods or more private goods from the government. Because the demands of the challenger will vary across cases, these semi-inclusive regimes of intermediate strength will not alter their distribution of public and private goods in a consistent pattern. Thus, regime strength is predicted to have no generalizeable effect on public and private goods provision by semi-inclusive regimes.

This chapter provides evidence of this interactive relationship between regime strength, regime inclusiveness, and the provision of public and private goods. The patterns described above are examined with a cross-sectional time-series quantitative analysis of over 150 countries for the years 1960-1999. These relationships are tested on 12 measures of public and private goods spanning repression, government expenditures, public education, and public health. These empirical tests suggest the threats posed by viable extra-institutional challengers dramatically alter the calculus of public and private goods provision. The weaker the regime, the more government spending reflects the demands of the extra-institutional challenger. As regimes strengthen, the distribution of public and private goods moves closer to the ideal preference of those who choose leaders via institutional mechanisms for executive selection. Replication of Morrow et al.'s recent work on regime type and public goods provision is used to show that more temporal and cross-national variation in government spending is explained

by a model that accounts for the effect of extra-institutional threats on the provision of public and private goods.¹

These results support the claim that viable extra-institutional challengers alter the calculus of public and private goods provision, but they also present two puzzles that are discussed in the analysis section. First, there is scant evidence to suggest that the inevitability of an extra-institutional challenge causes the weakest regimes to ignore the desires of their challengers and instead spend to please their institutional audience (Equilibrium 1). The parabolic relationships described above are not well-supported by this analysis because government spending by the weakest regimes is not significantly different from spending by regimes of intermediate strength. I believe this effect is not as predicted because the sample does not include a sufficient number of country-year observations where regimes are so weak that a challenge is inevitable. Because too few of the weakest states are observed, these tests result in a strong linear relationship characterized by a shift in spending away from the demands of challengers and toward the desires of selectors as regimes strengthen.

The second puzzle pertains to an important contradiction in the results of the 12 models of public and private goods provision examined here. Models on repression, public education, and government expenditures produce similar results, but each of the three models on public health indicators results in unpredicted and counterintuitive findings. Previous research by public goods scholars finds public health to be different from other kinds of public goods. I attribute this aberration to the fact that rapid changes in infant mortality, life expectancy, and other health indicators require much

¹ Morrow, James D., Bruce Bueno de Mesquita, Randolph M. Siverson, and Alastair Smith. 2008. "Retesting Selectorate Theory: Separating the Effects of *W* from Other Elements of Democracy." *American Political Science Review*, 102(3): 393-400.

more extensive investment than similar short-term changes in expenditure figures, repression, and public education. Because long-term investment in health does not result in the same immediate and observable effects as investment in civic institutions, schools, and welfare programs, changes to public health may be less useful to incumbents relative to more visible short-term changes in these other types of public goods.

After a brief review of the four spending hypotheses that were deduced from the formal model in Chapter 2, subsequent sections introduce measures for the important independent and dependent variables and specify a research design. Then, 12 measures of public and private goods are tested and the two aforementioned puzzles are discussed. A final section summarizes the chapter and provides some directions for further research.

The Spending Hypotheses

The logic drawn from the formal model is briefly summarized below. When a regime is so weak that an extra-institutional challenge is inevitable, then any attempt to buy the support of the challenger will be futile. A leader cannot deter the extra-institutional challenger by changing resource allocation, so a leader instead focuses on staying in power and bracing for the inevitable challenge. This is done by spending to please the pivotal selector (Equilibrium 1). As regimes strengthen, the challenger's expectations over the benefits of conflict decrease so they become willing to settle for some packages of public and private goods spending. The pivotal selector is willing to compromise to preserve the peace, so government spending shifts to appease the extra-

institutional challenger (Equilibrium 2). Further regime strengthening makes any extra-institutional threat unviable. The challenger is forced to settle for any offer. Knowing this, leaders alter their allocation of public and private goods to reflect the preference of the pivotal selector (Equilibrium 3). Formal proofs of these claims can be found at the end of Chapter 2.

The location of the extra-institutional challenger's ideal point dictates how public and private goods provision will deviate from the preferences of the pivotal selector when regimes are at intermediate strength. Where extra-institutional challengers demand less public goods provision, public goods provision will be at its minimum when regimes are at intermediate levels of strength. This is the case for inclusive forms of government:

H1: The relationship between state strength and public goods provision is non-monotonic among inclusive regimes. Public goods provision is highest when states are so weak that they will always be challenged and so strong that they will never be challenged. Inclusive regimes of intermediate strength spend less on public goods provision.

Inclusive regimes such as democracies are unlikely to face extra-institutional challenges from those who desire public goods because the regimes are already providing the desired high levels of public goods. The cost of exclusion from these regimes is relatively low because they are spending very little on private goods. Rather, these regimes are more likely to be challenged by those who demand less broadly-distributed public goods, more concentrated private rents, and exclusive government. To maintain regime stability, it is necessary for vulnerable inclusive regimes to decrease public goods spending so they can channel more resources to private rents for these extra-institutional challengers.

The opposite logic applies to exclusive regimes. Where the most likely challengers are those who demand increased public goods provision, regimes of intermediate strength are likely to spend more on public goods as they attempt to appease their extra-institutional challengers:

H2: The relationship between state strength and public goods provision is non-monotonic among exclusive regimes. Public goods provision is lowest when states are so weak that they will always be challenged and so strong that they will never be challenged. Exclusive regimes of intermediate strength spend more on public goods provision.

The formal model shows that semi-inclusive regimes are threatened by those who want more exclusive rule (and private goods provision) and challengers who desire more inclusive government (and public goods provision). Because these regimes will not be consistently challenged by one type of challenger, the strength of the regime is hypothesized to have no generalizable effect on public and private goods provision:

H3: There is no relationship between public goods provision and the strength of the regime among semi-inclusive regimes.

And finally, these hypotheses have an important implication for the oft-reported positive relationship between inclusive government (i.e. democracy) and public goods provision. Because the effect of regime inclusiveness is contingent upon the strength of the regime, the marginal effect of inclusiveness on public goods provision is expected to vary with regime strength. When regimes are spending according to the preferences of the pivotal selector, inclusiveness should have a significant positive effect on public goods provision. However, when regime strength is intermediate, the opposing effects predicted above cause both types of regimes to have more similar patterns of public and

private goods provision. Inclusive regimes spend less to buy off challengers who demand private goods provision while exclusive regimes appease movements for inclusive government with increased public goods provision. Therefore, the marginal effect should be great when regimes are weakest and strongest, but small or non-existent among regimes of intermediate strength:

H4: The marginal effect of regime inclusiveness on public goods provision is non-monotonic. Among the weakest and strongest regimes, inclusiveness has a positive effect on public goods provision. Among regimes of intermediate strength, however, inclusiveness has little, if any, effect on public goods provision.

The hypotheses offered above focus attention on three key concepts: the inclusiveness of the regime, the strength of the regime, and the provision of public and private goods. The next section describes how these concepts will be measured for the quantitative analysis.

Research Design

The inclusiveness of the regime is assessed using the size of the winning coalition (W) as described in *The Logic of Political Survival* (Bueno de Mesquita et al. 2003). I use this measure of regime inclusiveness rather than more common measures of democracy because this measure focuses on political participation and does not conflate this concept with other aspects of democracy.² To better ensure that this measure

² For more on the long debate surrounding the measurement of “democracy,” see: Bollen, Kenneth A. 1980. “Issues in the Comparative Measurement of Political Democracy.” *American Sociological Review*, 45(3): 370-390 and Treier, Shawn and Simon Jackman.

accounts for variation caused by inclusiveness rather than other characteristics of democratic governments, I follow Morrow et al. (2008) by controlling for other features of democratic rule in the models estimated below.

W ranges from 0 (most exclusive) to 1 (most inclusive) and it consists of four components, each being worth .25 of the aggregate score. .25 is added to W for each of the following conditions: (1) the regime is neither a “military” nor a “civilian-military” regime as coded by Banks (2007); (2) candidates for executive office are chosen via dual executive election or open election (*Polity IV* “xropen” > 2); (3) executives are chosen via competitive elections (*Polity IV* “xrcomp” ≥ 2); and (4) elections are typified by free and non-coerced competition of regularly active political groups (*Polity IV* “parcomp” = 5). More information about these components is available from Banks (2007) and Marshall and Jagers (2002).³

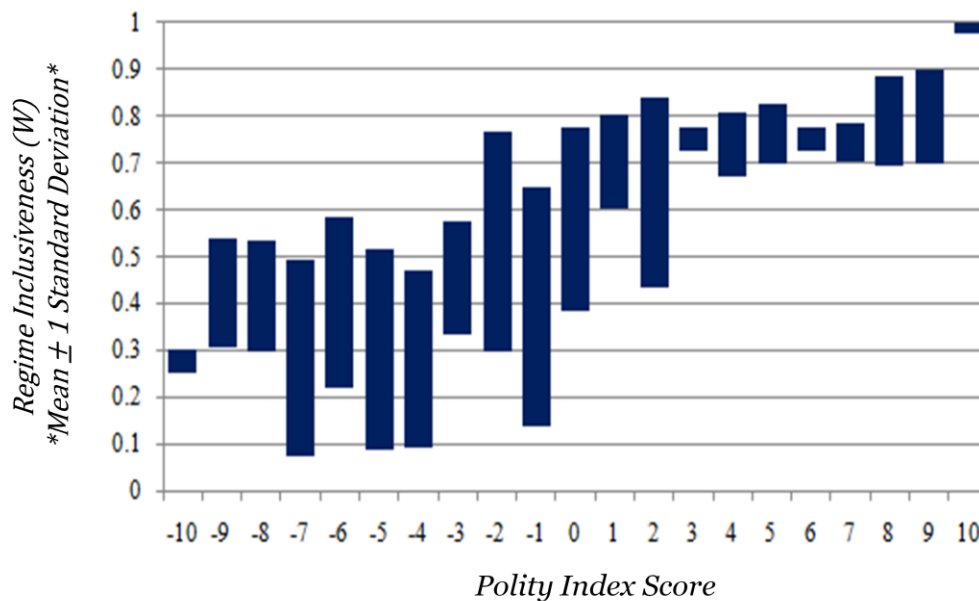
W and the well-known 21-value polity index score are highly correlated, but there are some important differences between these measures. States must have the maximum inclusion score to achieve the highest value on the polity index, but many states with inclusive institutions lack other elements of democracy, such as constraints

2008. “Democracy as a Latent Variable.” *American Journal of Political Science*, 52(1): 201-217.

³ Alternatively, one might consider the Bollen suffrage index, which provides the percentage of the adult population that is eligible to vote in executive elections. See Paxton, Pamela, Kenneth A. Bollen, Deborah M. Lee, and Hyo Joung Kim. 2003. “A Half-Century of Suffrage: Data and a Comparative Analysis.” *Studies in Comparative International Development*, 38(1): 93-122. However, it considers only electoral institutions for executive selection and cannot be used to evaluate non-electoral systems. W also distinguishes between non-competitive and competitive contests. For further information on the Banks and Polity data sources, see Banks, Arthur S. 2007. *Cross-National Time-Series Data Archive, 2007*. Binghamton, NY. Available Online: <http://www.databanksinternational.com> and Marshall, Monty G. and Keith Jagers. 2002. *Polity IV Data Set*. [computer file: version p4v2002]. College Park, MD: Center for International Development and Conflict Management, University of Maryland.

on executive power. The most inclusive regimes ($W=1$) have polity scores as low as 5 and more inclusive regimes ($W=.75$) have polity scores as low as -3. The least inclusive regimes ($W=0$) include country-year observations earning the modal polity index score of 0.

FIGURE 3.1: Regime Inclusiveness by Polity Index Score



While there are some differences between this measure of inclusion and measures of the much broader concept of democracy, this measure does capture the major institutional changes that occurred in the second half of the twentieth century (see Figure 3.2). While the proportion of most inclusive states ($W=1$) has held steady near 20% over this time period, the number of more inclusive states ($W=.75$) grew considerably with the third wave of democratization. Regimes with an inclusiveness score of .75 or greater comprised only 45% of the country-year observations in the 1950s, but this share increased to nearly 70% by the end of the century. Exclusive

FIGURE 3.2: Regime Inclusiveness by Year, 1960-2000

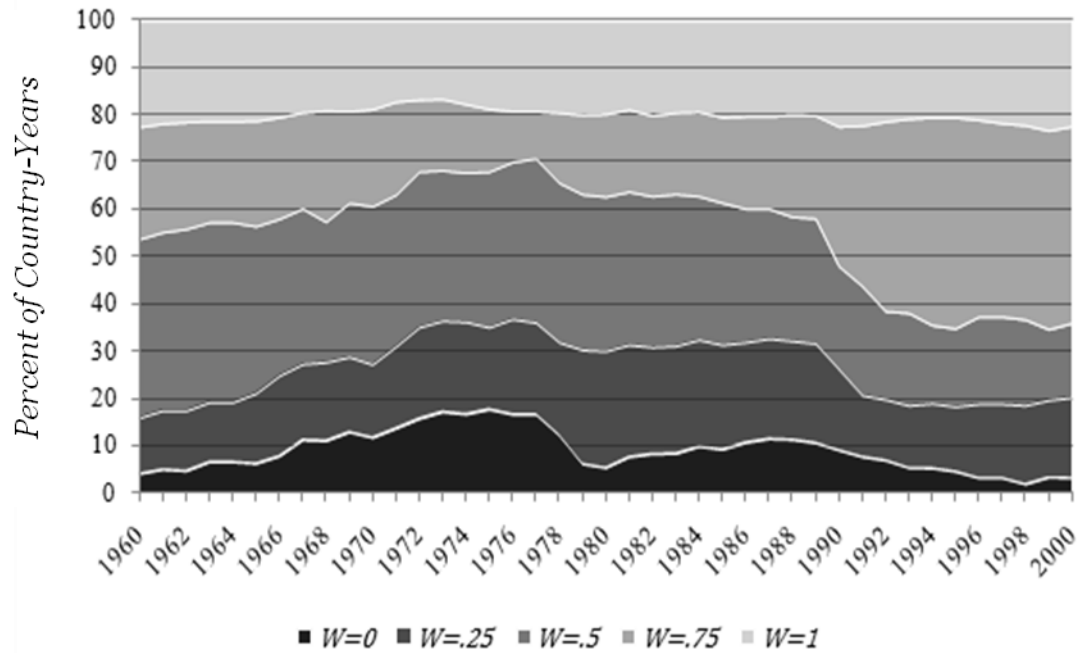
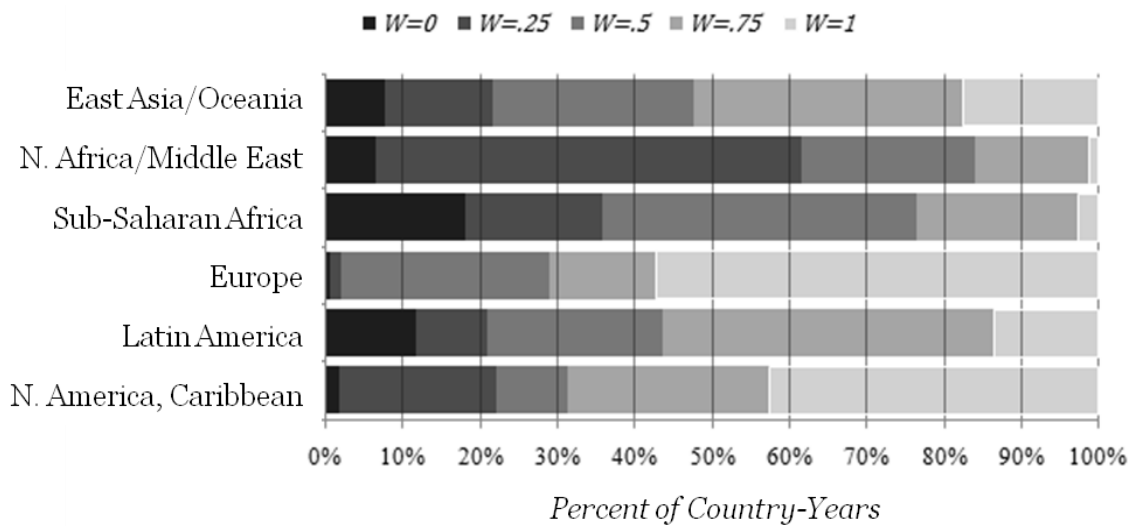


FIGURE 3.3: Regime Inclusiveness by Region, 1960-2000



regimes were most prominent in the 1970s during the last wave of African independence and the proliferation of military regimes in Latin America, but between 1975 and 2000 the share of observations with inclusiveness scores of .25 or 0 decreased from approximately 35% to 20% of the sample. Figure 3.3 illustrates the regional variation in regime inclusiveness.⁴

The Regime Strength Index

The second important independent variable is the probability that the regime will win should an extra-institutional challenge occur (regime strength). Of course, each challenge is different and the strategies taken by the extra-institutional challenger will alter her likelihood of success. However, civil war, regime transition, and civil-military relations scholars do find a number of variables that tend to predict the onset of a number of different types of extra-institutional challenge. I assess regime strength by compiling six of these variables into an original index of regime strength: per capita income, per capita economic growth rate, durability of political institutions, mixed regime type, presence in the global West, and the occurrence of civil war in contiguous states.

Wealthier states are thought to be less vulnerable to extra-institutional challenges for at least two reasons. First, wealthy states have more resources to invest in state defense, policing, and intelligence. Where the state is able to acquire and maintain sophisticated weapons systems and well-funded intelligence bureaucracies, the viability

⁴ I account for these regional and temporal trends with region-year fixed effects in the empirical tests that are discussed later in the chapter.

of extra-institutional challengers decreases substantially.⁵ Second, extra-institutional challengers, be they populist leaders or generals, have a harder time recruiting where citizens' opportunity costs for conflict are very high. Because citizens and soldiers generally have higher incomes in wealthy states, they must forego more income to initiate a challenge to the regime. Poverty and the inability to pay the military have fueled numerous extra-institutional challenges, including the violence in the Niger River Delta of Nigeria and the mass defections from the army of Sierra Leone during its long war against the Revolutionary United Front.⁶

Similarly, the rate of economic growth can signal windows of opportunity for extra-institutional challengers. In times of recession, citizens lose faith in the regime and become more willing to support extra-institutional challenges. Scholarship on civil war suggests poor economic performance aids rebel recruitment. Coup scholars also find that military leaders use deteriorating economic conditions to justify interventions into government. Both coup and civil war are more likely to occur during an economic downturn, which suggests regimes lose some capacity to deter these challenges during recessions. Well-known economic recessions that led to extra-institutional challenges include the East Asian financial crisis that ended Suharto's rule in Indonesia, the deep

⁵ With regard to civil war, see Collier, Paul and Anke Hoeffler. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers*, 56(4): 563–595. For an application to coup, see Londregan, John B. and Keith T. Poole. 1990. "Poverty, the Coup Trap, and the Seizure of Executive Power." *World Politics*, 42(2): 151–183.

⁶ A more general discussion of this problem is provided by Grossman, Herschel I. 1991. "A General Equilibrium Model of Insurrections." *American Economic Review*, 81(4): 912–921. African examples are provided by Humphreys, Macartan and Jeremy M. Weinstein. 2008. "Who Fights?: The Determinants of Participation in Civil War." *American Journal of Political Science*, 52(2): 436–455 and Widner, Jennifer A. (Editor). 1994. *Economic Change and Political Liberalization in sub-Saharan Africa*. Baltimore: Johns Hopkins University Press.

recession in the former Yugoslavia in the late 1980s, and the collapse of the global coffee markets that gave rise to Hutu extremism in Rwanda in the 1990s.⁷

While regime strength can be rapidly undermined by economic shocks, regime strengthening is generally a function of time. The redistributive effects of taxation, the consolidation of the state apparatus, and the regime's ability to monitor and deter extra-institutional threats increase with the longevity of state institutions. Surely, regime strength and institutional durability are not perfect correlates, but extra-institutional threats generally become less viable as institutions persist.

The strong relationship between a regime's vulnerability to extra-institutional threats and institutional durability is widely noted in the regime transition literature. Huntington claims competing interests are more likely to meet within institutions once predicted patterns of behavior are established.⁸ Time is also critical to the development of the political cultures needed for regime stability in cultural theories.⁹ Lack of consolidation is directly linked to the short duration of new institutions in the large body of work that followed the "third wave" of democratization.¹⁰ Bienen and Van de

⁷ See Blattman, Christopher and Edward Miguel. 2010. "Civil War." *Journal of Economic Literature*, 48(1): 3–57, Galetovic, Alexander and Ricardo Sanhueza. 2000. "Citizens, Autocrats, and Plotters: A Model and New Evidence on Coups d'État." *Economics and Politics*, 12(2): 183–204, and O'Kane, Rosemary H. 1981. "A Probabilistic Approach to the Causes of Coups d'État." *British Journal of Political Science*, 11(3):287–308, 1981.

⁸ Huntington, Samuel P. 1968. *Political Order in Changing Societies*. Cambridge, MA: Harvard University Press.

⁹ Almond, Gabriel A. and Sidney Verba. 1989. *The Civic Culture: Political Attitudes and Democracy in Five Nations*, New Edition. Newbury Park, CA: Sage Publications and Putnam, Robert D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.

¹⁰ Diamond, Larry. 1994. "Toward Democratic Consolidation." *Journal of Democracy*, 5(3): 4–17, Herbst, Jeffrey Ira. 2001. "Political Liberalization in Africa after Ten Years." *Comparative Politics*, 33(3): 357–375, Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman, OK: University of Oklahoma

Walle (1991) conclude that the length of time a leader has been in power is the single best predictor of how long the leader will remain in power.¹¹

Institutional durability is also linked to regime strength by a number of empirical patterns. Extra-institutional threats to regimes do not occur erratically over the tenure of a regime. Rather, history suggests regimes are most likely to face extra-institutional challenges during the first years in power. As institutions persist, regimes are less likely to see major political crises, revolutions, civil wars, and coups d'état. Major events like civil wars and revolutions occur in more than 20% of regimes that have been in power less than five years, but occur in just over 5% of regimes that endure for thirty years.¹² Coup d'état occurs in roughly 2% of regimes in their first five years. By a regime's thirtieth year in power, this probability drops to less than 0.5%.¹³ The risk of major

Press, Van de Walle, Nicholas. 2003. "Presidentialism and Clientelism in Africa's Emerging Party Systems." *Journal of Modern African Studies*, 41(2): 297–321, Way, Lucan A. 2005. "Authoritarian State Building and the Sources of Regime Competitiveness in the Fourth Wave: The cases of Belarus, Moldova, Russia, and Ukraine." *World Politics*, 57(2): 231–261.

¹¹ Bienen, Henry and Nicholas van de Walle. 1991. *Of Time and Power*. Stanford, CA: Stanford University Press.

¹² Fearon and Laitin (2003) find regimes in their first two years of power to be more than five times more vulnerable to civil war than longer-lasting regimes. They find this distinction between new and longer-lasting regimes to be one of the most important predictors of civil war. Theda Skocpol (1979) also finds institutional weakness to be a strong predictor of revolution. See: Fearon, James D. and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review*, 97(1): 75–90 and Skocpol, Theda. 1979. *States and Social Revolution: A Comparative Analysis of France, Russia, and China*. New York: Cambridge University Press.

¹³ Jenkins, J. Craig and Augustine J. Kposowa. 1992. "The Political Origins of African Military Coups: Ethnic Competition, Military Centrality, and the Struggle over the Postcolonial State." *International Studies Quarterly*, 36(3): 271–292.

political crisis declines by more than 50% after political institutions have been in place for thirty years.¹⁴

Interestingly, the literature does not report a relationship between democracy and the initiation of extra-institutional challenges. This suggests democracies are not inherently stronger than non-democratic regimes after differences in state wealth are considered. Instead, scholars find a robust curvilinear relationship between the level of democracy and regime strength. The least democratic states do not guarantee the rights and freedoms that facilitate the organization of opposition parties and popular movements. This increases regime strength relative to challengers because it increases the cost of initiating a challenge. Regimes are also found to be strong when they have functional democratic institutions. Because citizens can overthrow the regime at the polls, the opportunity costs of conflict are high, making rebel recruitment more difficult. Regimes are at their weakest when they are semi-democratic. Here, electoral venues exist but are corrupt, competitive, or otherwise inadequate. Rights to organize and speak freely are guaranteed by law, and legal opposition parties create authentic leaders for opposition movements. For this reason, mixed-type institutions may pose acute

¹⁴ The source of the indicator of civil war is the Armed Conflict Dataset hosted by the Uppsala Conflict Data Program (UCDP) and the International Peace Research Institute (PRIO). For coding details, see Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand. 2002. "Armed Conflict 1946-2001: A New Dataset." *Journal of Peace Research*, 39(5): 615–637. The measures of political crises, coups, and revolutions are drawn from the Arthur Banks' Cross-National Time-Series Dataset (Banks, 2007). Regime durability is measured with the *Polity IV* data. This measure is discussed further in the research design section of this chapter.

obstacles to regime stability that are not present in more democratic and less democratic contexts.¹⁵

Finally, regimes can be weakened not only by internal political and economic crises, but also by regional instability. Gleditsch (2007) finds regional factors, including conflict in neighboring states, refugee flows, and the density of regional economic relationships to be accurate predictors of civil conflict. Where states exist among neighbors who are poor, conflict-prone, and ill-equipped to absorb their own displaced populations, conflict is more likely to cross borders.¹⁶

I account for these regional effects in the regime strength index by including two variables. The first is a dichotomous indicator that is equal to 1 if the state is a Western democracy. Western states enjoy denser economic interdependence, more active international organizations, and stronger military alliances that reduce the threat of civil war and coup contagion. Foreign support for initiators of coup or civil war is less likely in this community of interdependent democracies. The second variable is a count variable of the number of wars occurring in contiguous states. Wars across borders are very dangerous because they increase challenger access to finance and weapons, provide cross-border sanctuaries for rebels, generate disruptive refugee flows, and supply extra-

¹⁵ Hegre, Håvard, Tanja Ellingsen, Scott Gates, and Nils Petter Gleditsch. 2001. "Toward a Democratic Civil Peace?: Democracy, Political Change, and Civil War, 1816-1992." *American Political Science Review*, 95(1): 33-48.

¹⁶ For research on transnational and regional causes of conflict, see Gleditsch, Kristian Skrede. 2007. "Transnational Dimensions of Civil War." *Journal of Peace Research*, 44(3): 293-309, Salehyan, Idean. 2007. "Transnational Rebels: Neighboring States as Sanctuary for Rebel Groups." *World Politics*, 59(2): 217-242, and Salehyan, Idean and Kristian Skrede Gleditsch. 2006. "Refugees and the Spread of Civil War." *International Organization*, 60(2): 335-366.

institutional challengers with potential allies.¹⁷ Military mobilization in response to instability across borders also increases the legitimacy of military leaders and increases the viability of coup d'état.¹⁸ The important role of neighborhood effects can be seen in the origins of the Khmer Rouge in Cambodia and the long civil war in Chad. Interestingly, both of these states saw conflict across their borders result in both civil war and military rule.¹⁹

The six components of the regime strength index are measured as follows. Wealth is measured as per capita gross domestic product and the source of this data is Fearon and Laitin (2003). Because the effect of additional wealth on regime strength should diminish as states become wealthier, this variable is logged. Economic growth is the annual percentage change in per capita gross domestic product. This measure is created by dividing per capita GDP by the country's per capita GDP in the previous year. This measure is then converted so that 0 marks no annual change in per capita GDP, 1.0 signifies a 1% annual increase, and -1.0 means per capita GDP fell by 1% in one year. Institutional durability is measured according to the "durable" measure in the *Polity IV* data set. This variable counts the number of years since institutions were (1) overturned

¹⁷ Also see Fearon and Laitin (2003).

¹⁸ Li and Thompson address the problem of "coup contagion" in: Li, Richard P. Y. and William R. Thompson. 1975. "The "Coups Contagion" Hypothesis." *Journal of Conflict Resolution*, 19(1): 63-84.

¹⁹ In Cambodia, Prince Sihanouk's rule was undermined by his inability to deal with the Vietnamese supply routes running through eastern Cambodia. Resentment caused increased support for the military, which resulted in a successful coup by General Lon Nol in 1970. Nol's alignment with South Vietnam generated support for the North Vietnamese communists in rural Cambodia. This eventually led to the strengthening of the Khmer Rouge, the onset of the Cambodian civil war, and the initiation of the Cambodian genocide. In Chad, conflict in western Sudan, Libya, and the Central African Republic strained the delicate relationship between Chad's Arab and black African populations. This culminated in the onset of a civil war led by former military officer Idris Déby.

and replaced or (2) reformed to the extent that the reform resulted in a change of at least three points on the 21-value polity index score. Because a change in durability from one to five years should have a much greater effect on regime strength than a change in durability from 21 to 25 years, this durability measure is logged. Mixed Regime Type is measured by subtracting the absolute value of the polity index score from 10. “Pure-type” regimes at -10 and 10 on the polity index receive a score of 0 and the score increases as states’ polity index scores move closer to 0. The result is an 11-value measure of mixed regime type ranging from 0 (polity index of -10 or 10) to 10 (polity index of 0). Finally, Western states are defined by Fearon and Laitin (2003) and include most of the states of Europe, North America, and Japan. The contiguous wars variable is generated by using Correlates of War to identify contiguous states and Fearon and Laitin (2003) to determine the number of wars occurring in those states in a given country-year.

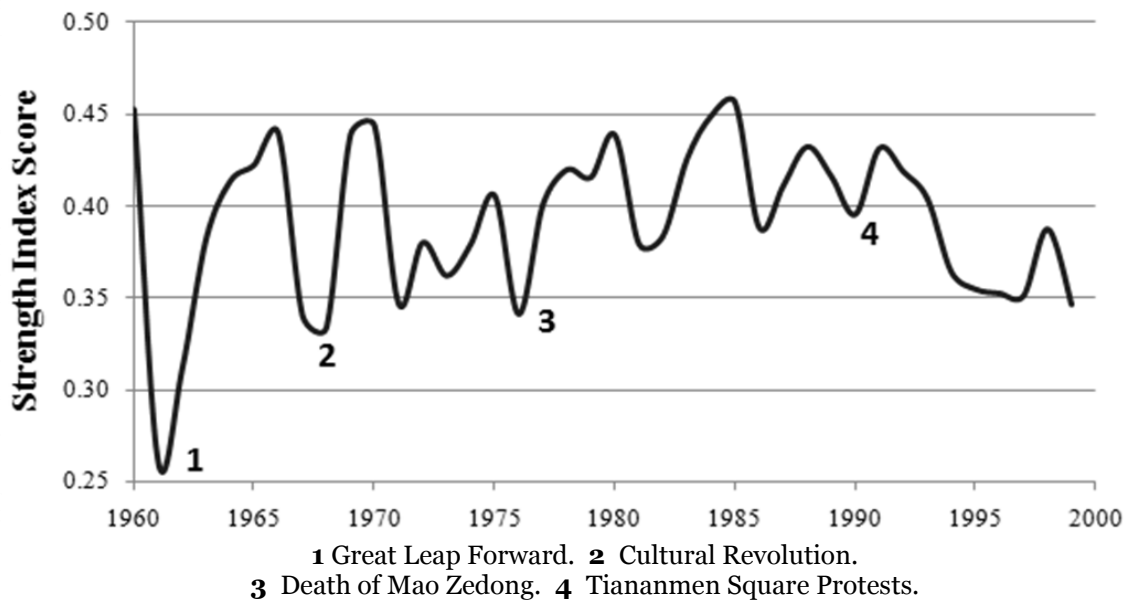
To create an index of regime strength from these measures, I standardize each component so that it has a mean of 0 and variance of 1.²⁰ Each country-year observation’s mean value for these six components is recorded and these means are then rescaled so the weakest country-year in the sample has a score of 0 and the strongest country-year in the sample has a score of 1. The mean strength score is .515 and the standard deviation is .145. The Cronbach’s Alpha (scale reliability coefficient) for the index is .7066.

²⁰ Scores for Mixed Regimes Type and Contiguous Wars are reversed because these components are negatively related to regime strength.

TABLE 3.1: Correlations of Strength Index Components

	<i>Institutional Durability</i>	<i>Per Capita Growth</i>	<i>Mixed Regime Type</i>	<i>Per Capita Income</i>	<i>Western Region</i>
<i>Per Capita Growth</i>	0.1081				
<i>Mixed Regime Type</i>	-0.5168	-0.0528			
<i>Per Capita Income</i>	0.4367	0.0927	-0.4027		
<i>Western Region</i>	0.4372	0.0888	-0.4282	0.6601	
<i>Contiguous Wars</i>	-0.155	-0.0837	0.1880	-0.3607	-0.2847

FIGURE 3.4: Regime Strength Index for China, 1960-1999



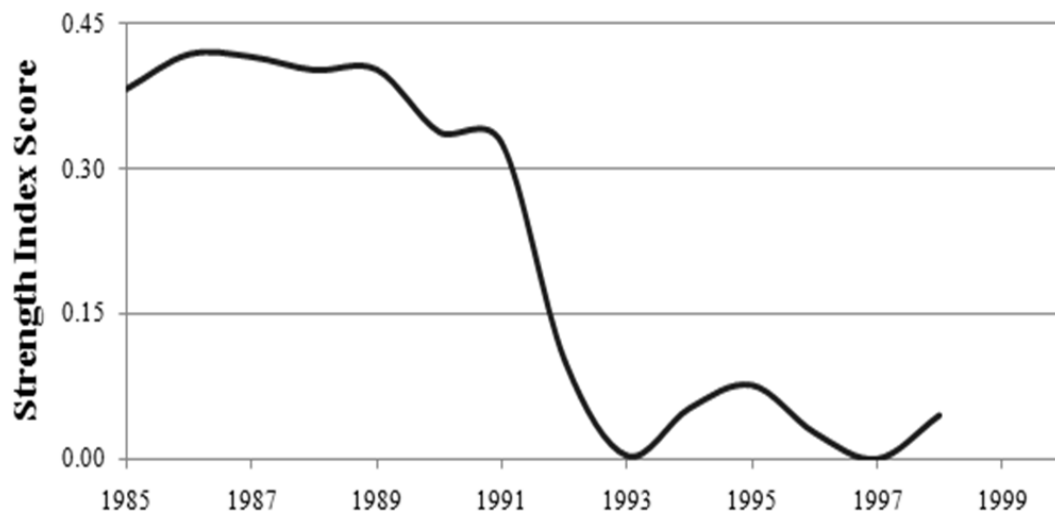
The value of this index is demonstrated by two cases. First, Figure 3.4 charts the strength index scores of the People’s Republic of China from 1960 to 1999. One can see that the index is very dynamic, reflecting changes in economic conditions, political change, and events in neighboring states. Immediately after 1960, China’s strength index score dropped steeply but briefly. This 50% decrease in strength reflects the economic catastrophe that resulted from Mao’s “Great Leap Forward.” After recovering

for the next five years, China's strength fell again in the late 1960s period remembered as the Cultural Revolution. China's strength rose and decreased a number of times in the 1970s, mostly due to inconsistent economic growth and increased war in India and Pakistan. It hits its nadir for the decade in 1976, the year of Mao's death. Interestingly, strength increases in the 1980s as China's economy begins to grow steadily, but this gain in index score is tempered by political liberalization under Deng Xiaoping, which brought China into the dangerous range of semi-autocratic regimes. As predicted, this political liberalization opened the door for mass protests against the regime, culminating in the 1989 demonstrations at Tiananmen Square in Beijing. During the 1990s, regime strength decreased slightly with the proliferation of civil wars and instability among many neighbors, including Pakistan, Afghanistan, Russia, Burma, and Nepal.

The Democratic Republic of the Congo (formerly known as Zaire) provides a second illustrative anecdote. In the 1980s, Zaire's strength was fairly stable. Mobutu's regime passed its twentieth anniversary and the country, with the help of Cold War-era foreign assistance from the United States government, maintained a steady national income. In contrast, the early 1990s saw a rapid decrease in the strength of the state for a number of reasons. First, this region of Africa was afflicted by a massive economic recession. Estimates of Zaire's economic growth rates were -7.8% in 1989, -9.6% in 1990, -11.4% in 1991, and finally -13.3% in 1992. This recession saw increased political violence among Zaire's neighbors, including the Tutu rebellion in Rwanda. Finally, increased pressure on Mobutu's regime prompted liberalization and political reforms, which weakened the regime's repressive capacity. Zaire's polity score increased from -9 in 1989 to 0 in 1992. The consequences of this drop in regime strength were disastrous.

Rebels from Uganda, Rwanda, Sudan, and Angola established bases in Congolese territory. Refugees poured into the Congo from these countries, further decreasing state capacity. War finally broke out in the Congo in 1996, and the instability was compounded by Mobutu's death the following year. The ultimate result was the complete collapse of authority and the outbreak of the deadliest war in Africa's short post-independence history.

FIGURE 3.5: Regime Strength Index for Zaire/DRC, 1985-1998



Measures of Public and Private Goods Provision

Lastly, I turn to the measurement of the dependent variables. Public and private goods are broad categories that encompass diverse types of expenditures. Rather than use a single variable to generalize about all kinds of public or private goods spending, I use 12 dependent variables covering public and private goods provision spanning education, health, freedoms, and government expenditures. These alternate measures of

public and private goods add some robustness to the research design and allow for comparison across different types of public and private goods expenditures. Each of these 12 dependent variables is discussed below.

Core political freedoms qualify as basic public goods because they protect citizens from repression. Citizens with guarantees of political rights and civil liberties are free to speak, worship, and congregate as they choose. Furthermore, provision of these rights signals investment in police and other state bureaucracies that are needed to organize voting and promote equality. *Political Rights* and *Civil Liberties* are measured using *Freedom in the World Historical Ratings*, published by Freedom House. These data include scores for political rights and civil liberties for the years 1972-1999. These variables are seven-point indices with a score of 1 marking the most-free states and a score of 7 marking the least-free states.²¹

Government expenditures directly measure a regime's commitment to the provision of public and private goods. Unlike social welfare indicators that may take years to change, government expenditures toward public goods can change dramatically with each annual budget. Furthermore, because expenditures are measured as percentages of gross domestic product, these measures directly capture a government's choice to fund public goods over private rents or kleptocracy.

This study uses three measures of public goods expenditures: *Education Expenditure*, *Health Expenditure*, and *Welfare Expenditure* - all measured as a percentage of gross domestic product. Health and education expenditure data are collected by the World Bank. The World Bank amended its measurement of education

²¹ A complete list of components for each index is available from Freedom House. 2009. *Freedom in the World Historical Rankings, 1973-2006*. Washington: Freedom House.

expenditures following the 2002 edition of the *World Development Indicators*, so the temporal scope of this variable is 1970-1999. Health expenditure data spans the years 1990-1999. The source of the welfare expenditure data is the Przeworski et al. (2000) measure for central government expenditure on social security and welfare. This variable is available for the years 1970-1990.²²

While expenditures measure the government's attention to public goods, one might argue constituents are more likely to respond to changing conditions rather than budget reports from the central government. For this reason, I include three measures of education. The first variable is the *Adult Illiteracy Rate* (+15 years of age), collected by the World Bank for the years 1970-1999. The second variable, *Educational Attainment*, is the Przeworski et al. (2000) measure of the cumulative years of education for the average member of the workforce (1960-1987). The third variable, *Human Capital Stock*, is a similar measure based on citizens' average number of years of education. This measure, collected by Robert Barro and Jong-Wha Lee, covers the years 1960-1999 at five-year intervals.²³

The hypotheses are also tested against three measures of public health. Two of these measures are collected by the World Bank: *Hospital Beds* (per 1000) and *Life Expectancy at Birth*. The temporal scope for each variable is 1960-1999. The final measure of health is *Infant Mortality Rate* as reported by Abouharb and Kimball

²² These data sources can be located at: Przeworski, Adam, Michael Alvarez, José Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. New York: Cambridge University Press, World Bank. 2002. *World Development Indicators, 2002*. Washington: The World Bank. Available on Compact Disc, and World Bank. 2007. *World Development Indicators, 2007*. Washington: The World Bank. Available on Compact Disc.

²³ See Barro, Robert J. and Jong-Wha Lee. 2001. "International Data on Educational Attainment: Updates and Implications." *Oxford Economic Papers*, 53(3): 541-563.

(2007). Infant mortality rate is the ratio of deaths before the second birthday per 1000 children born.²⁴

Finally, accurate measures of private goods expenditures are scarce because this government spending is often masked in other projects. Following Bueno de Mesquita et al. (2003), I attempt to proxy private goods provision by examining state *Construction Expenditures per Worker*. Graft is often masked in the bloated, exaggerated budgets of major construction projects. For this reason, I predict construction expenditures per worker to follow the predicted patterns of private goods provision. The source of this measure is the online data appendix of *The Logic of Political Survival*.

TABLE 3.2: Summary of Dependent Variables

<i>Variable</i>	<i>Source</i>	<i>Years</i>	<i>N*</i>
Political Rights	Freedom House (2007)	1972-1999	2851
Civil Liberties	Freedom House (2007)	1972-1999	2851
Health Expend.	World Bank (2007)	1990-1999	890
Education Expend.	World Bank (2002)	1970-1999	2790
Welfare Expend.	Przeworski et al. (2000)	1970-1990	937
Educational Attainment	Przeworski et al. (2000)	1960-1987	2162
Human Capital Stock	Barro and Lee (2001)	1960-1999	663
Adult Illiteracy	World Bank (2002)	1970-1999	2475
Hospital Beds	World Bank (2007)	1960-1999	1048
Life Expectancy	World Bank (2007)	1960-1999	1835
Infant Mortality	Abouharb and Kimball (2007)	1960-1999	3700
Construction Expend.	Bueno de Mesquita et al. (2003)	1965-1992	1206

* *N* is the number of observations for which data is complete for all of the variables needed to estimate the full model presented below.

²⁴ This dataset was introduced in Abouharb, M. Rodwan and Anessa L. Kimball. 2007. "A New Dataset on Infant Mortality Rates, 1816-2002." *Journal of Peace Research*, 44(6): 743-754.

Analysis

The hypotheses presented above are tested with a pooled time-series cross-sectional analysis of 12 public and private goods. Following Morrow et al. (2008), each of these dependent variables is assessed using ordinary least squares regression with region-year fixed effects and each estimation includes controls for logged population, logged per capita gross domestic product, and constraints on executive power.²⁵ Replication is advantageous because it allows for direct comparison to extant work that does not consider the influence of extra-institutional challengers on public and private goods provision. Comparison of the base model by Morrow et al. (2008) and my model will show that much more variance is explained when one considers the role of extra-institutional threats in the calculus of public and private goods provision.

The base model by Morrow et al. (2008) accounts for variation in regime inclusion, but it does not examine the interactive effect of regime strength and regime inclusiveness. Testing the hypotheses presented above necessitates the addition of four variables to the base model: regime strength, the square of regime strength, the interaction of inclusiveness and strength, and the interaction of inclusiveness and the square of regime strength. These parameters allow the relationship between regime strength and public goods provision to become curvilinear. They also allow the shape of the curve to change depending upon the inclusiveness of the regime. If my hypotheses are correct, the relationship between strength and public goods provision follows a

²⁵ The source of the measures for logged population and logged per capita gross domestic product is the *World Development Indicators* data, which is available from the World Bank (2007). Following previous research on the effects of coalition size (Clarke and Stone, 2008; Morrow et al., 2008), I control for executive constraints to separate the effect of the winning coalition size from other aspects of democracy. The source of this data is the “exconst” variable from *Polity IV*. For coding procedures, please refer to Marshall and Jaggers (2002).

parabolic u-pattern for inclusive regimes, a relatively flat and insignificant relationship for semi-inclusive regimes, and a parabolic inverse-u-pattern among exclusive regimes.

Of course, adding four parameters to the model decreases the degrees of freedom. It is necessary to compare the models to determine whether any increased variation explained by the larger model is justified by this decrease in degrees of freedom. Because the large model is nested in the base model, it is appropriate to do this using Akaike's Information Criterion (AIC). 12 measures of public and private goods are analyzed in this chapter and each measure is better explained by the larger model that accounts for the role of extra-institutional challengers.²⁶

Table 3.3 provides the results of the main analysis of the 12 measures of public goods provision. While the coefficients presented below can be used to estimate public goods provision given values of the independent variables, point estimation and first difference testing are needed to determine the uncertainty surrounding the interaction effects.²⁷ To test the first hypothesis, all controls are held at their means and inclusiveness (W) is held at its maximum value of 1. Then, the point estimate for each dependent variable is calculated with confidence intervals over the entire range of the strength index score. The hypothesis is evaluated by using first difference testing on the point estimates to determine whether a statistically significant curvilinear relationship exists. Such a relationship exists if the confidence intervals at the minimum and maximum of regime strength do not overlap with the confidence interval at the maximum or minimum predicted value. In other words, a statistically significant

²⁶ The larger model is justified if the AIC of the larger model (9 degrees of freedom used) is lower than the AIC of the base model (5 degrees of freedom used). This is the case for all 12 dependent variables.

²⁷ Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis*, 14(1): 63–82.

curvilinear relationship exists only if a distinct and statistically significant maximum or minimum occurs within the range of the strength index score. The same method is used to assess Hypotheses 2 and 3 when the value of regime inclusiveness is held at .5 (*H3*) and 0 (*H2*). The marginal effect of inclusiveness (*H4*) is examined by comparing the predicted values for inclusive and exclusive regimes across the range of regime strength.

The predicted relationship between public goods provision and regime strength in inclusive government is parabolic. The weakest and strongest regimes are expected to provide more public goods relative to those regimes of intermediate strength that must use some private goods to buy off viable extra-institutional challengers. If this is true, we should observe a significant parabolic relationship between regime strength and public goods provision with the minimum level of public goods provision occurring somewhere within the range of regime strength.²⁸

These tests offer mixed support for this hypothesis. Most models do not result in a robust parabola that is significant on both sides. Rather, these tests suggest the weakest inclusive regimes do not engage in the high level of public goods predicted by the model. This insignificant parabola is evident in the following figure.

²⁸ Note that the minimum of level of public goods provision will sometimes be represented by a maximum of the function, as in the models for the repression of civil liberties, the repression of political rights, construction expenditures, adult illiteracy, and infant mortality. Public goods provision is best when these predicted values are lowest. This is illustrated in Figure 3.6.

TABLE 3.3: 12 Models of Public and Private Goods

	<i>Repression of Civil Liberties</i>	<i>Repression of Political Rights</i>	<i>Education Expenditures</i>	<i>Health Expenditures</i>
<i>Regime Inclusiveness</i>	-2.361***	-1.184	7.141***	2.350
<i>Regime Strength</i>	-10.885***	-3.166	17.321***	-0.416
<i>Strength²</i>	15.019***	4.847*	-19.109***	-15.003
<i>Inclusiveness*Strength</i>	14.339***	0.664	-30.310***	19.669*
<i>Inclusiveness*Strength²</i>	-21.532***	-4.887	31.690***	2.350
<i>Per Capita Income (log)</i>	-0.154***	-0.995***	0.312***	0.184**
<i>Population (log)</i>	0.083***	0.008	-0.154***	-0.042
<i>Executive Constraints</i>	-0.384***	-0.466***	0.153***	0.246***
<i>Constant</i>	7.575***	8.129***	-0.659***	3.592**
<i>N</i>	2851	2851	2790	890
<i>R²</i>	0.7397	0.8054	0.2188	0.4596

	<i>Welfare Expenditures</i>	<i>Educational Attainment</i>	<i>Human Capital</i>	<i>Adult Illiteracy</i>
<i>Regime Inclusiveness</i>	1.256	6.136***	7.693**	19.845
<i>Regime Strength</i>	16.300	7.845	24.806**	57.528
<i>Strength²</i>	-20.149	-9.744*	-27.439**	-33.369
<i>Inclusiveness*Strength</i>	-17.652	-29.780***	-36.031***	-130.963**
<i>Inclusiveness*Strength²</i>	28.278	33.567***	39.253***	149.852**
<i>Per Capita Income (log)</i>	0.650***	1.045***	1.252***	-11.806***
<i>Population (log)</i>	0.188**	-0.056**	0.043	-0.027
<i>Executive Constraints</i>	-0.147	0.098***	0.057	0.178
<i>Constant</i>	-5.148	-4.245***	-10.952***	103.646***
<i>N</i>	937	2162	663	2475
<i>R²</i>	0.6351	0.7029	0.7156	0.4926

	<i>Infant Mortality</i>	<i>Life Expectancy</i>	<i>Hospital Beds</i>	<i>Construction Expenditures</i>
<i>Regime Inclusiveness</i>	27.697	-10.824**	-3.122	-409.788***
<i>Regime Strength</i>	-7.171	-35.332**	23.156	-1288.333***
<i>Strength²</i>	75.613	27.390**	12.520	1452.109***
<i>Inclusiveness*Strength</i>	-96.586	52.322***	16.088	1805.917***
<i>Inclusiveness*Strength²</i>	64.697	-47.770***	-14.190	-1933.227***
<i>Per Capita Income (log)</i>	-20.866***	3.994***	0.690***	-0.328
<i>Population (log)</i>	-0.806**	0.104	-0.258***	6.482***
<i>Executive Constraints</i>	-1.448***	-0.110	-0.052	-0.091
<i>Constant</i>	224.909***	41.032***	11.946***	299.928***
<i>N</i>	3700	1835	1048	1206
<i>R²</i>	0.6095	0.7473	0.0527	0.1409

FIGURE 3.6: Strength and Civil Liberties in Inclusive Regimes

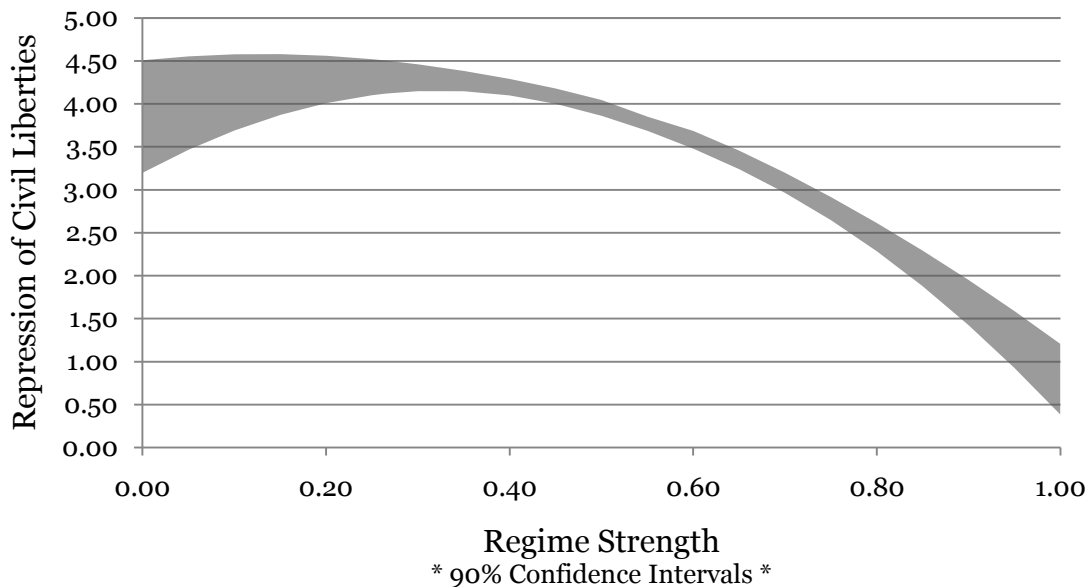
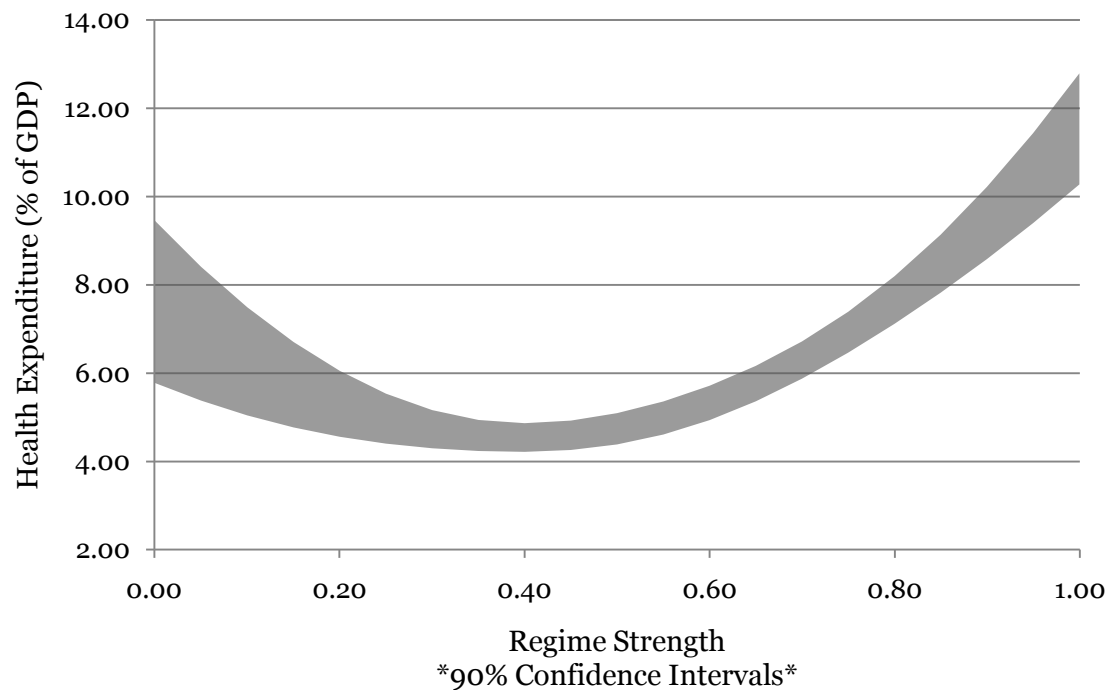


Figure 3.6 depicts the dynamic relationship between regime strength and the repression of civil liberties in inclusive regimes. The curve roughly follows the hypothesized shape. Public goods provision is lowest (here, repression of civil liberties is highest) when regimes are weak to moderately-weak. As inclusive regimes strengthen, they are able to invest more money into the protection of civil liberties and repression decreases steeply. One can see that the curvilinear relationship is not significant on both sides of the maximum. The weakest inclusive regimes are not better providers of civil liberties relative to inclusive regimes of intermediate strength. The relationship is best described as an exponential decrease in the repression of civil liberties that begins when inclusive regimes reach approximately two standard deviations below the mean of regime strength (.26). Before reaching this level of regime strength, there is no significant relationship between regime strength and the repression of civil liberties.

Similar patterns result from the models on repression of political rights, welfare expenditures, and human capital stock (complete results are offered in Table 3.4 below).

Each of these models predicts the expected increase in public goods provision occurring once inclusive regimes reach intermediate strength, but they offer no evidence to suggest that very weak inclusive regimes are also strong providers of public goods.

FIGURE 3.7: Regime Strength and Health Expenditures in Inclusive Regimes



The hypothesized parabolic curve does emerge in four models of public and private goods provision: education expenditures, health expenditures, construction expenditures, and educational attainment. The predicted values generated by the health expenditure model are plotted in Figure 3.7 above. Here, a significant drop in public goods provision occurs over the lower range of regime strength. Health expenditures reach their minimum around one standard deviation below the mean level of regime strength (0.40), and the predicted increase in public goods provision characterizes the relationship over the upper range of regime strength. These changes are also

substantively significant. The weakest inclusive regimes spend nearly 2.5% of GDP more on health than inclusive regimes of moderate strength. The strongest inclusive regimes are predicted to spend more than twice as much on health as inclusive regimes of moderate strength. While the parabolic relationship is statistically significant on both sides of the minimum as predicted, note that the magnitude of the interactive effect in the upper range of regime strength is much greater than it is for the lower range of regime strength. Substantively, this suggests weak inclusive regimes spend more on public goods than some slightly stronger regimes, but they don't spend as much as the pivotal selector would prefer.

Four more models result in significant relationships in unpredicted directions: adult illiteracy rate and the three health models (infant mortality rate, hospital beds, and life expectancy). None of these models predict the expected high level of public goods provision among the weakest regimes, but all four support a robust *negative* relationship between regime strength and public goods provision. All else being equal, inclusive regimes see rates of illiteracy and infant mortality *increase* as their regimes strengthen. When all controls are held at their means, life expectancy falls from a high of 64.3 years to a low of 57.4 years as inclusive regimes move from one standard deviation below the mean regime strength (.40) to the maximum level of regime strength (1.0). The number of hospital beds per capita provided by these regimes falls by nearly 90% over this range of regime strength.

Complete first difference tests pertaining to inclusive regimes are offered in Table 3.4 below. For each model, I report regime strength at the minimum level of public goods provision and significant differences on either side of that minimum. Only those first differences that are significant at the $p < 0.10$ level are listed.

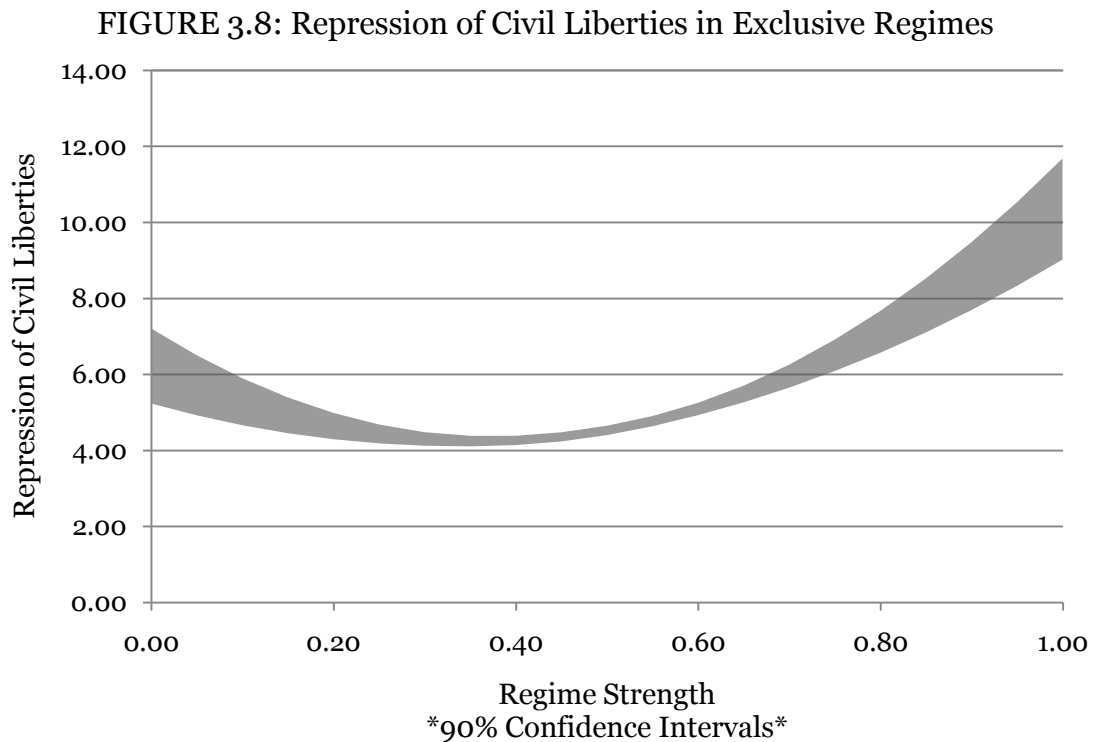
TABLE 3.4: Significant First Differences for Inclusive Regimes

	<i>Regime Strength at Minimum Public Goods Provision</i>	<i>First Difference (if Sig. at $p < .10$): Strength=0 - Strength at Min. Public Goods</i>	<i>First Difference (if Sig. at $p < .10$): Strength=1 - Strength at Min. Public Goods</i>
<i>Repress. of Civ. Liberties</i>	0.27		-3.52
<i>Repress. of Pol. Rights</i>	0		-2.54
<i>Education Expenditures</i>	0.52	3.35	2.95
<i>Health Expenditures</i>	0.4	3.07	6.99
<i>Welfare Expenditures</i>	0.09		6.83
<i>Educational Attainment</i>	0.46	5.05	6.94
<i>Human Capital</i>	0.48		3.26
<i>Adult Illiteracy</i>	1	-43.05 [†]	
<i>Infant Mortality Rate</i>	1	-36.55 [†]	
<i>Hospital Beds</i>	1	-8.74 [†]	
<i>Life Expectancy</i>	1		
<i>Construction Expend.</i>	0.54	-139.2	-102.73

[†] Marks significant first differences in the unpredicted direction.

In summary, Hypothesis 1 was evaluated with 12 models of public and private goods. Four of the 12 models exhibit the complete parabola predicted in Chapter 2. Education expenditures, health expenditures, construction expenditures, and educational attainment provide evidence of higher levels of public goods provision among extremely weak and strong inclusive regimes relative to moderately-weak inclusive regimes, although these parabolic relationships are far from symmetric. Weak and strong regimes spend more on public goods than those of intermediate strength, but the strongest regimes spend much more than the weakest regimes. Four more models suggest the weakest inclusive regimes do not provide high levels of public goods, but

they do find that public goods provision increases once regimes meet a moderately-low threshold of regime strength. Finally, four models - three of which are the three public health models - come to the counterintuitive conclusion that inclusive regimes become *worse* providers of public goods as they strengthen.



These tests also offer mixed support for the second hypothesis, which predicts exclusive regimes to spend less on public goods when they are too weak to deter a challenge, more on public goods at intermediate levels of strength, and less on public goods when they are very strong. This hypothesized parabolic relationship is supported by only four of the 12 models of public and private goods provision: repression of civil liberties, education expenditures, human capital, and construction expenditures. Again, the first differences are much more significant for the upper range of regime strength.

Weak exclusive regimes are worse providers of public goods than exclusive regimes of moderate strength, but the strongest exclusive regimes spend less on public goods by a large margin. One of these relationships is illustrated in Figure 3.8 above.

Here, repression falls as exclusive regimes strengthen from the minimum strength of 0 to 0.36, which is slightly less than one standard deviation below the mean of 0.515. Having achieved this moderately-low threshold of strength, repression increases dramatically as a regime's chances of victory in an extra-institutional challenge force the challenger to tolerate increasing levels of repression.

Similar predictions result from the models on construction expenditures, education expenditures, and human capital. As predicted, education expenditures and human capital are lower in the weakest exclusive regime relative to those of intermediate strength. The construction budgets that are often used to hide private rents and graft are lowest among regimes of intermediate strength. The other side of the parabola is also robust. Exclusive regimes strengthening from an intermediate level to the maximum level of strength (0.4 to 1.0) see education expenditures fall by nearly 6% of GDP and the average years of education (human capital) decrease by more than eight years. Construction expenditures nearly double over this range of regime strength. Again, these parabolic effects are asymmetric. The strongest exclusive regimes exhibit worse public goods provision than the weakest exclusive regimes.

Five more models suggest only one side of the parabolic relationship is statistically significant. Repression of political rights, educational attainment, and infant mortality are no worse in the weakest regimes, but each model shows that public goods provision falls significantly as exclusive states move from intermediate to the maximum level of regime strength. Two of the three health measures (hospital beds and life

expectancy) improve as exclusive regimes transition from weak to intermediate strength, but these models offer no evidence to suggest that the strongest exclusive regimes ignore public health in favor of more exclusive private rents. In these models, however, the vertex of the curve occurs very high in the range of regime strength (0.93 for hospital beds, for example), suggesting these relationships might better be described as linear.

TABLE 3.5: Significant First Differences for Exclusive Regimes

	<i>Regime Strength at Maximum Public Goods Provision</i>	<i>First Difference (if Sig. at $p < .10$): Strength=0 - Strength at Max. Public Goods</i>	<i>First Difference (if Sig. at $p < .10$): Strength=1 - Strength at Max. Public Goods</i>
<i>Repress. of Civ. Liberties</i>	0.36	1.97	6.11
<i>Repress. of Pol. Rights</i>	0.33		2.20
<i>Education Expenditures</i>	0.45	-3.93	-5.71
<i>Health Expenditures</i>	0.00		
<i>Welfare Expenditures</i>	0.41		
<i>Educational Attainment</i>	0.40		-3.48
<i>Human Capital</i>	0.45	-5.61	-8.24
<i>Adult Illiteracy</i>	0.86		
<i>Infant Mortality Rate</i>	0.05		68.61
<i>Hospital Beds</i>	0.93	10.71	
<i>Life Expectancy</i>	0.65	11.40	
<i>Construction Expend.</i>	0.45	285.76	449.53

The three remaining models (health expenditures, welfare expenditures, and adult illiteracy rate) result in a shallow curve that fails to reach statistical significance on either side of the maximum of public goods provision. These relatively flat relationships

suggest regime strength has no robust effect on public goods provision in regimes with exclusive institutions.

The 12 tests on the interaction between regime strength and the provision of public and private goods do not produce consistent results, although many results are somewhat supportive of the hypothesized relationships. Four of the 12 measures of public and private goods produce the expected parabolic relationship: repression of civil liberties, construction expenditures, education expenditures, and human capital. As regimes strengthen from the minimum to the maximum regime strength index score, these public goods slightly increase before decreasing sharply once a regime attains a moderately-weak level of regime strength. Like the first difference results for inclusive regimes, the parabolas are not symmetric. The strongest exclusive regimes generally provide much lower levels of public goods than the weakest exclusive regimes. Five of the 12 models do not predict the direction of this relationship to change. Instead, repression of political rights, infant mortality, hospital beds, educational attainment, and life expectancy change in only one direction over the range of regime strength. The curvilinear relationship is statistically insignificant for models on health expenditures, welfare expenditures, and adult illiteracy rate.

Parabolic or Linear Effects?

The solution to the formal model specified in Chapter 2 predicts the interactive effect of regime strength and regime inclusiveness on government spending to take a parabolic functional form. While these initial tests show that a robust interaction effect exists, they also suggest that the parabolic nature of this effect is much weaker than was

predicted. In the few models in which the weakest regimes are found to provide significantly different levels of public and private goods than moderately weak regimes, this first difference pales in comparison to the first difference between strong and moderately-weak regimes. The first differences reported above clearly show that the weakest regimes do not allocate resources as predicted.

I believe the absence of a statistically or substantively significant parabolic interaction effect can be attributed to the representativeness of the sample of cases on which the hypotheses are tested. The model predicts the interaction effect across all possible ranges of regime strength and a parabolic effect will only be observed if a sufficient number of country-year observations exist over the entire range of regime strength. Unless a sufficient portion of the sample consists of county-year observations which are so weak that extra-institutional challenges are inevitable, the empirical tests on the sample will not result in a parabolic effect. The weakest possible regimes are underrepresented and largely unobserved in the sample. Because we observe very few, if any, states that will almost surely lose an extra-institutional challenge, we do not observe the behavior we would expect from these unobserved regimes.

Some of the weakest country-year observations in the sample may be so weak that extra-institutional challenges were inevitable in these cases. Six of the eight weakest regime index scores in the sample belong to the Democratic Republic of the Congo in the 1990s. This anarchic environment gave rise to war not only in the Congo, but also among many of its neighbors. The histogram provided below (Figure 3.9) shows that very few cases have strength scores approaching this extreme. State strength in the Congo in this period ranges from 0 to 0.05, but fewer than 5% of the observations in the sample have strength index scores below .40. Because these weakest levels of regime

strength are not observed in this sample, the predicted patterns of public and private goods provision do not emerge from the empirical tests on this sample. More regimes occupy the intermediate and stronger levels of regime strength, which is why the predicted effects pertaining to this range of regimes are well-supported by the data.

FIGURE 3.9: Histogram of Regime Strength Index Score

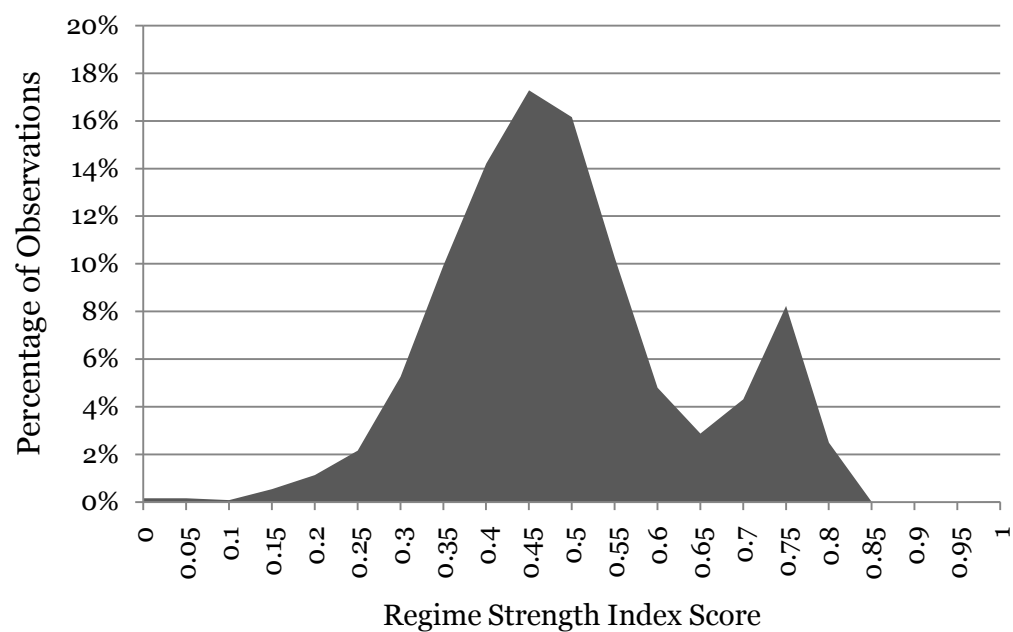


FIGURE 3.10: Comparison of Functional Forms

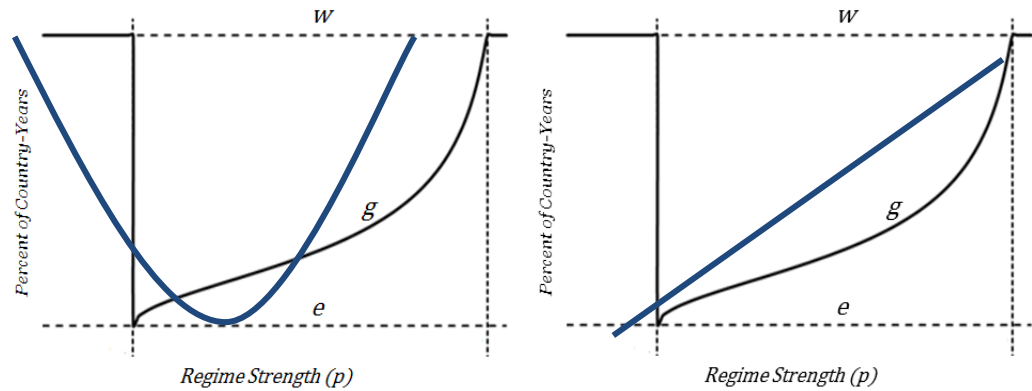


TABLE 3.6: Coefficients for Linear Models of Public and Private Goods

	<i>Repression of Civil Liberties</i>	<i>Repression of Pol. Rights</i>	<i>Education Expenditures</i>	<i>Health Expenditures</i>
<i>Regime Inclusiveness</i>	3.017***	-0.170	-1.280***	-4.320***
<i>Regime Strength</i>	3.647***	1.228***	-1.867***	-4.551***
<i>Inclusiveness*Strength</i>	-7.768***	-3.870***	3.421***	10.454***
<i>Per Capita Income (log)</i>	-0.145***	-0.092***	0.302***	0.234***
<i>Population (log)</i>	0.071***	0.006	-0.134***	-0.008
<i>Executive Constraints</i>	-0.381***	-0.468***	0.143***	0.178***
<i>Constant</i>	4.325***	7.155***	3.691***	4.429***
<i>N</i>	2851	2851	2790	890
<i>R</i> ²	0.7364	0.8049	0.2034	0.2769

	<i>Welfare Expenditure</i>	<i>Educational Attainment</i>	<i>Human Capital</i>	<i>Adult Illiteracy</i>
<i>Regime Inclusiveness</i>	-6.242***	-4.940***	-2.849***	-19.449***
<i>Regime Strength</i>	-3.741	-4.548***	-2.800	18.434**
<i>Inclusiveness*Strength</i>	12.049***	10.144***	5.641***	27.867***
<i>Per Capita Income (log)</i>	0.663***	1.069***	1.246***	-11.730***
<i>Population (log)</i>	0.192**	-0.030	0.054	0.063
<i>Executive Constraints</i>	-0.144	0.097***	0.052	0.087
<i>Constant</i>	-0.501	-1.191	-4.415***	112.336***
<i>N</i>	937	2162	663	2475
<i>R</i> ²	0.6366	0.1766	0.7124	0.495

	<i>Infant Mortality</i>	<i>Life Expectancy</i>	<i>Hospital Beds</i>	<i>Construction Expenditures</i>
<i>Regime Inclusiveness</i>	-4.697	3.262**	0.059	163.799***
<i>Regime Strength</i>	45.366***	-5.534**	-11.568***	246.975***
<i>Inclusiveness*Strength</i>	6.534	-1.406	2.338	-351.688***
<i>Per Capita Income (log)</i>	-20.476***	3.976***	0.707***	1.332
<i>Population (log)</i>	-0.645*	0.091	-0.266***	6.811***
<i>Executive Constraints</i>	-1.607***	-0.092	-0.051	0.154
<i>Constant</i>	212.670***	33.669***	9.392***	-106.153***
<i>N</i>	3700	1835	1048	1206
<i>R</i> ²	0.6108	0.7452	0.0493	0.0653

Given that the weakest possible regimes are underrepresented in the sample, a curvilinear functional form may be inappropriate. Without the weakest regimes in the sample, we will observe those moderately-weak regimes that are most vulnerable to extra-institutional challenges and strong regimes that are relatively invulnerable to

these threats. Instead of expecting a parabolic interaction effect, we should observe intermediate levels of public goods provision among the weaker regimes in the sample and gradual shifts toward institutional preferences as regimes strengthen. Public goods provision will increase as inclusive regimes become more insulated from the threats of extra-institutional challengers, exclusive regimes will divert fewer resources to public goods as they strengthen, and we should observe no significant change in the provision of public and private goods in semi-inclusive regimes. The marginal effect of regime inclusiveness on public goods provision should increase across the entire range of regime strength observed in this sample.

I evaluate these linear hypotheses with first differences tests that compare the level of public and private goods when regime strength is two standard deviations above (0.80) and below (0.23) the mean. Evaluating the interaction effect over this range allows me to determine whether regime strength and inclusiveness have important effects over the range of state strength which most states occupy.

The results of the first difference tests provide strong support for the linear hypotheses. Inclusive regimes generally increase public goods provision as they strengthen and become less vulnerable to extra-institutional challengers. Repression of civil liberties and political rights decreases by approximately one standard deviation on each scale. Education expenditures increase by 0.89% of gross domestic product, which is approximately half of one standard deviation. The magnitudes of the first differences for health and welfare expenditures are much greater. These figures increase by 3.36% and 4.74% of gross domestic product, respectively. Construction expenditures, educational attainment, and human capital also result in significant change in the predicted direction.

TABLE 3.7: First Difference Tests for Linear Models

	<i>H1 (W = 1)</i> <i>Inclusive</i> <i>Regimes</i>	<i>H2 (W=0)</i> <i>Exclusive</i> <i>Regimes</i>	<i>H3 (W=0.5)</i> <i>Semi-Inclusive</i> <i>Regimes</i>	<i>H4 (W=1 - W=0)</i> <i>Marginal Effect</i> <i>of Inclusiveness</i>
<i>Repress. of Liberties</i>	-2.349	2.079		-4.428
<i>Repress. of Rights</i>	-1.506	0.700	-.403 [†]	-2.206
<i>Education Expend.</i>	0.887	-1.063		1.95
<i>Health Expend.</i>	3.364	-2.594		5.958
<i>Welfare Expend.</i>	4.736			6.868
<i>Educ. Attainment</i>	3.191	-2.593		5.784
<i>Human Capital</i>	1.62	-1.596		3.216
<i>Adult Illiteracy</i>	26.391 [†]	10.508	18.449 [†]	
<i>Infant Mortality</i>	29.583 [†]	25.859	27.721 [†]	
<i>Hospital Beds</i>	-5.261 [†]	-6.594	-5.927 [†]	
<i>Life Expectancy</i>	-3.956 [†]	-3.155	-3.555 [†]	
<i>Construction Expend.</i>	-59.686	140.776	40.545 [†]	-200.462

The same four models that yielded counterintuitive findings in the curvilinear models also offered aberrant results in the linear models. Adult illiteracy rates increases by 26 percentage points (1 standard deviation) and infant mortality increases by 29 deaths per 1000 (half of one standard deviation). Hospital beds per 1000 residents and life expectancy decrease as inclusive regimes strengthen, although the change in life expectancy is very small (less than one third of one standard deviation).

First difference tests on exclusive regimes result in statistically significant effects in the predicted direction for 11 of the 12 models. Repression of political rights and civil liberties, infant mortality, adult illiteracy, and construction budgets increase as exclusive regimes strengthen and face a lesser incentive to provide for those who are excluded from institutions for executive selection. Educational attainment and human capital stock fall, as do life expectancy, hospital beds per 1000, health expenditures, and

education expenditures. The only model that does not find a statistically significant decline is welfare expenditures. While this first difference is in the predicted direction, it does not meet the conventional threshold for statistical significance.

As predicted, no consistent first difference occurs for semi-inclusive regimes. Only six of the 12 models result in a significant first difference for these regimes. Four of these six first differences occur in the same models that produce the counterintuitive findings for inclusive regimes: adult illiteracy, infant mortality, hospital beds per 1000, and life expectancy. The other two models with significant first differences are repression of political rights and construction expenditures. Interestingly enough, one of these first differences indicates a very slight improvement in public goods spending (repression of political rights) but the other produces a minor decrease in public goods provision (construction expenditures). With the exception of the three health models and adult illiteracy, these models offer strong support for the claim that regime strength has little or no effect on public and private goods provision in semi-inclusive systems.

Finally, the marginal effect of regime inclusiveness on public goods provision increases as predicted for eight of the 12 models. In each of these models, variation in regime type matters less for weak regimes relative to strong regimes. The four exceptions to this finding are the same four models that produce counterintuitive results for inclusive regimes. The effect of regime inclusiveness does not change with regime strength in the models of adult illiteracy, infant mortality, hospital beds per 1000, and life expectancy.

Health Indicators and Anomalous Results

These tests offer very strong support for all four hypotheses, although the health models offer some aberrant results. If the three health models are excluded the models offer consistent support for each hypothesis. Eight of nine non-health models show that inclusive regimes improve public goods provision as they strengthen. Regime strength has a negative effect on public goods provision among exclusive regimes in all nine of the non-health models. The marginal effect of inclusiveness increases as predicted in eight of the nine non-health models, and semi-inclusive regimes show no change in public goods in six models and very minor and inconsistent changes in the other three.

The government's ability to rapidly influence health conditions is questioned by those who claim improvements to public health require substantial long-term investments in not only medicine, but also in adequate and sanitary shelter, female education, nutrition, and infrastructure.²⁹ This is one of many recent studies to find that health indicators do not support theories of public goods provision as well as other public goods indicators.³⁰ The stark contrast between the results for the health models and those of the other public goods models suggests public health provision may follow unique patterns that warrant more specific study.

Scholars are beginning to study differences in trends across public goods and research in this area is very promising. Recent papers by economists including Keefer

²⁹ Filmer, Deon and Lant Prichett. 1999. "The Impact of Public Spending on Health: Does Money Matter?" *Social Science and Medicine*, 49(10): 1309–1323.

³⁰ Avelino, George, David S. Brown, and Wendy Hunter. 2005. "The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America, 1980-1999." *American Journal of Political Science*, 49(3): 625–641, Morrow et al., 2008, and Ross, Michael L. 2006. "Is Democracy Good for the Poor?" *American Journal of Political Science*, 50(4): 860–874.

and Khemani (2005) and Mani and Mukand (2007) distinguish between “visible” and “invisible” public goods.³¹ Visible public goods are those which produce easily-recognizable short-term effects. New schools, reading programs, and improvements to civil liberties are efficient and likely to produce the desired boost in public opinion. Contrarily, invisible goods that require a large amount of investment and produce no short-term visible effects are less likely to result in popular support. Following this logic, regimes concentrate on areas of public goods provision where improvement is easy, efficient, and recognizable. Long-term investment in health care is invisible, and therefore less likely to result in popular support. Relative to other public goods, there may be a lesser incentive to invest in these goods.

Robustness of Results

These results are robust across various model specifications and estimators. The generalized estimating equation model (GEE) is an increasingly popular alternative to fixed effects models in cross-sectional time-series studies, especially when explanatory variables of interest (W , for example) vary infrequently within panels.³² The political

³¹ Keefer, Philip and Stuti Khemani. 2005. “Democracy, Public Expenditures, and the Poor: Understanding Political Incentives for Providing Public Services.” *World Bank Research Observer*, 20(1): 1-27 and Mani, Anandi and Sharun Mukand. 2007. “Democracy, Visibility, and Public Good Provision.” *Journal of Development Economics*, 83(2): 506–529.

³² The method was introduced in: Liang, L. Y. and S. L. Zeger. 1986. “Longitudinal Data Analysis Using Generalized Linear Models.” *Biometrika*, 73(1): 13–22. Later applications to problems in political science include Maddala, G. S. 1998. “Recent Developments in Dynamic Econometric Modeling: A Personal Viewpoint.” *Political Analysis*, 7(1): 59–87 and Zorn, Christopher J. W. 2001. “Generalized Estimating Equation Models for Correlated Data: A Review with Applications.” *American Journal of Political Science*, 45(2): 470–490.

rights, government expenditures, and education models are retested using a general estimating equation, and results for all nine models are unchanged with no exceptions.³³

In previous tests of the relationship between regime inclusiveness and public goods provision, scholars show that the effect of inclusiveness is suppressed by collinearity with per capita GDP. Because inclusiveness also increases per capita GDP, the inclusion of per capita GDP as a control variable may distort the relationship between inclusiveness and public goods provisions.³⁴ Indeed, per capita GDP suppresses many of the relationships found in this study. When the nine models for political rights, government expenditure, and education are run without a control for logged per capita GDP, most of the models predict effects of greater magnitude than those reported above.

The temporal variation in public goods provision explored in this chapter might be explained by a lag between policy adjustment and outcome. Many social welfare indicators do not change much from year to year, so it may be that inclusive and exclusive regimes take time to exhibit their expected patterns of public goods provision because their divergent policies take years to produce noticeable effects. Life expectancy, for example, is unlikely to plummet rapidly should a small-coalition regime succeed a large-coalition system. Rather, we should expect the gradual depreciation in life expectancy that is predicted above.

This alternate explanation would be more persuasive if the public goods indicators that require the most time to change (infant mortality, life expectancy, etc.)

³³ Following Zorn (2001), each GEE model was estimated with Huber-White robust standard errors.

³⁴ See the debate between Clarke and Stone (2008) and Morrow et al. (2008).

offered the strongest support for the hypotheses tested here. However, the opposite is true. Of the 12 public goods examined in this chapter, the predicted patterns of public goods provision are most robust for models of public goods that are most easily changed over a short period, including political rights, civil liberties, and government expenditures. These public goods are the least likely of the 12 examined to exhibit temporal dependence, yet they offer the strongest evidence of a relationship between regime strength and incentives for public goods provision. This suggests public goods provision changes with regime consolidation not because regimes *cannot* shift government expenditures and political rights abruptly, but because leaders decide against abrupt changes in public goods provision. Here, this choice is attributed to the incentives created by a new regime's heightened vulnerability to extra-institutional challengers.

Discussion

This study has important implications for public goods and global development research. First, it finds evidence to support the oft-reported relationship between inclusive government and increased public goods provision. However, it qualifies this well-known relationship by showing that the magnitude of the effect is dependent upon the viability of extra-institutional challenges. Regime strength allows leaders to focus resource allocation on incentives created by institutions for executive selection. Leaders presiding over weak regimes cannot act according to these incentives because they must also address extra-institutional threats. As a result, previous public goods research overstates the effect of regime type on public goods provision for weak regimes while

understating this effect for stronger regimes. In sum, inclusive government has a greater effect on public goods provision than previously thought, but the full magnitude of this effect is not seen until regimes strengthen.

Second, this study uses rigorous quantitative testing to assess temporal variation that has been discussed but not tested in extant research. Bueno de Mesquita et al. (2003) posit that non-democratic governments may spend less on public goods as the loyalty of their winning coalition increases over time, but this implication of selectorate theory has not been tested with a time-series analysis of public goods provision in these regimes. This study finds evidence of this trend, although it attributes this change to a much different cause. Prior work by McGuire and Olson (1996) and Olson (1993) claims non-democratic leaders with short time horizons may be more kleptocratic, attempting to reward their insiders as quickly as possible before the inevitable end of their regime arrives.³⁵ This study finds evidence to contradict that claim. Furthermore, it suggests that leaders who attempt to “beat the clock” will only encourage the excluded to rise up and oust the leader more quickly.

Third, the argument presented here presents a major theoretical contribution to the public goods literature. The logic of political survival, as it is discussed in previous work, is conceived too narrowly to completely capture a leader’s perception of threat to her leadership tenure. Scores of leaders would surely agree that viable extra-institutional threats create incentives for the allocation of government resources. This

³⁵ See McGuire, Martin C. and Mancur L. Olson. 1996. “The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force.” *Journal of Economic Literature*, 34(1): 72–96 and Olson, Mancur. 1993. “Dictatorship, Democracy, and Development.” *American Political Science Review*, 87: 567–576.

argument broadens the logic of political survival to account for these demands. By doing so, it explains more variation in public goods provision.

These findings also have important foreign policy implications. Policy-makers often struggle to determine the long-term interests of new regimes. Should the world be concerned by Harmid Karzai's continued reliance upon local leaders and suspected warlords? When might cronyism in the Afghan regime give way to the public goods provision expected from democratic regimes? For how long will populist autocrats like Venezuela's Hugo Chavez maintain favor with the masses? Will he become more repressive as his regime consolidates? This research suggests observers should not have too much hope in dictators that provide for their people in their first years in power, nor should they express too much concern over democracies that do not immediately provide for their citizens. Benevolence in new autocracies and corruption in new democracies may not be indicative of long-term behavior. These behaviors are survival mechanisms that are likely to wane as regimes strengthen and become increasingly immune to extra-institutional threats to regime survival.

Finally, this chapter provides a theoretical link between government spending and the onset of challenges to a regime. These results suggest leaders alter the allocation of government resources to account for the demands of their likely challengers, but what happens when regimes fail to do so? If inclusive regimes fail to shift resources toward private goods or exclusive regimes ignore the demands of a viable movement for inclusive government, these regimes should be more likely to see coup and civil war. The link between spending and stability is further examined in the next chapter.

THE STABILITY HYPOTHESES

The results of the previous chapter indicate leaders of weak regimes alter their provision of public and private goods in attempts to insulate their regimes from the threats posed by viable extra-institutional challengers. In the case of inclusive regimes, leaders slow the redistribution of wealth by reducing public goods provision while their regimes might be vulnerable to extra-institutional threats. Special favors to elites are not easily measured, but there is evidence to suggest that these regimes commit a greater share of their budgets to the large construction projects which so often hide graft and private goods targeted toward political elites. Corruption increases when inclusive regimes are weak, and I hypothesize that this observed change in spending reflects governments' desires to avoid conflict with viable challengers. Once these regimes strengthen, public goods provision rises to reflect the decreased vulnerability of the regime to those who prefer decreased social spending.

The leaders of exclusive non-democratic governments face grave threats from the excluded masses when their regimes are weak. It is when they are unable to rely upon the strength of their institutions and the effectiveness of their repression that they must consider their popularity with those who are excluded from the political system. Accordingly, these vulnerable exclusive states greatly increase public goods provision to appease the people and purchase their support. As these regimes strengthen and

popular movements become less viable, the government's incentives for appeasement are reduced so that strong exclusive regimes spend little on the general public.

But under what conditions are these alterations to government spending effective? When can leaders successfully reduce the risk of extra-institutional challenges to their regimes, and when are leaders spending in vain? This chapter addresses these questions by returning to the stability hypotheses produced by the formal model in Chapter 2. I begin by reintroducing these hypotheses, which predict the conditions under which leaders might successfully increase regime stability by altering government spending. Next, I assess these hypotheses with quantitative analysis and discuss the results.

The central contribution of these tests is that the leaders of weak exclusive regimes can greatly decrease the likelihood of regime failure by increasing the provision of public goods. Benevolence promotes stability in these regimes. However, private goods provision does not offer a similar pacifying effect for inclusive regimes. There is no robust relationship between regime spending and regime stability in weak inclusive regimes. The chapter ends with a discussion of this unexpected result, which is explored further with case studies in the next chapter.

The Stability Hypotheses

According to the formal model specified in the second chapter of this dissertation, government spending on public and private goods is likely to deviate from the desires of the pivotal institutional selector when regimes are weak enough to face a viable threat from a domestic challenger to the regime. Under these conditions ($p \leq$

p^f), governments face strong incentives to attempt to buy the support of the challenger by deviating toward the challenger's ideal distribution of public and private goods (e). How far the government must compromise is dependent upon the strength of the state. When the state is very strong, the challenger must be more willing to compromise and therefore the government need not deviate much from the desires of the pivotal selector to dissuade a challenge and secure the regime. As the state weakens, however, the challenger can strike a harder bargain and the government must deviate more from the pivotal selector's preferences to reduce the likelihood of an extra-institutional challenge.

Much depends, therefore, on the two preferences that shape incentives for government spending: (1) the ideal point of the pivotal selector and (2) the ideal point of the extra-institutional challenger. Recall that the preference of the pivotal selector (w) is a function of the inclusiveness of the regime. When regimes are very inclusive, private goods are dispersed too broadly so public goods provision becomes more efficient. Alternatively, pivotal selectors in exclusive regimes are one of a small number of selectors, so any private goods provision will be granted in larger concentrations. Thus, the relationship between the inclusiveness of the regime and the pivotal selector's preference for public goods provision is *positive*.

Potential challengers to regimes have diverse preferences, so leaders of weak regimes are compelled to respond to the likely preferences of their most likely challengers. As demonstrated in Chapter 2 (see Figure 2.5), the most likely challengers will be those who have the most to gain by replacing the ruling regime via extra-institutional means. Those who prefer private goods stand to lose the most under inclusive regimes while exclusive regimes are most threatened by challengers who prefer high levels of inclusion and public goods provision. As a result, inclusive regimes will

spend less on public goods provision while they are weak and the opposite is true of weak exclusive regimes. These predicted patterns were strongly supported by the quantitative analysis offered in Chapter 3.

The solution to the formal model proved that extremely weak regimes would not spend in this way because these regimes are so weak that any attempt to placate the challenger would be futile. For this group of the weakest regimes, no effort to appease the challenger could be successful because the weakness of the state makes conflict inevitable. This solution resulted in the following hypothesis pertaining to regime stability:

H5: Among the weakest regimes ($p \leq p^f$), there is no relationship between public goods provision and the occurrence of extra-institutional challenges to the regime.

However, there is reason to doubt that *H5* will be supported by empirical analysis. As discussed in the last chapter, this group of incredibly weak states exists in theory, but there are too few observations at this low extreme of state strength to expect any robust statistical relationship. In fact, the tests on spending provided in the last chapter offered no support for hypotheses applying to the weakest regimes. Given this shortage of observations and the important non-finding from the last chapter, I anticipate no support for this hypothesis. Instead, I expect to observe that those regimes that attempt to placate extra-institutional challengers as shown in Chapter 3 will be less likely to suffer extra-institutional challenges relative to those regimes that do not alter regime spending during periods of regime weakness. Therefore, the following hypotheses will be tested in this chapter:

H6: Inclusive regimes of intermediate strength are more likely to suffer extra-institutional challenges when public goods spending is high.

H7: Exclusive regimes of intermediate strength are more likely to suffer extra-institutional challenges when public goods spending is low.

H8: Public goods provision does not predict the occurrence of extra-institutional challenges among semi-inclusive regimes.

The analysis below will test one more hypothesis about regime stability. Because some regimes are so strong that there is no need to appease unviable challengers, there should be no relationship between regime spending and regime stability among stronger regimes:

H9: Among the strongest regimes ($p \geq p^w$), there is no relationship between public goods provision and the occurrence of extra-institutional challenges.

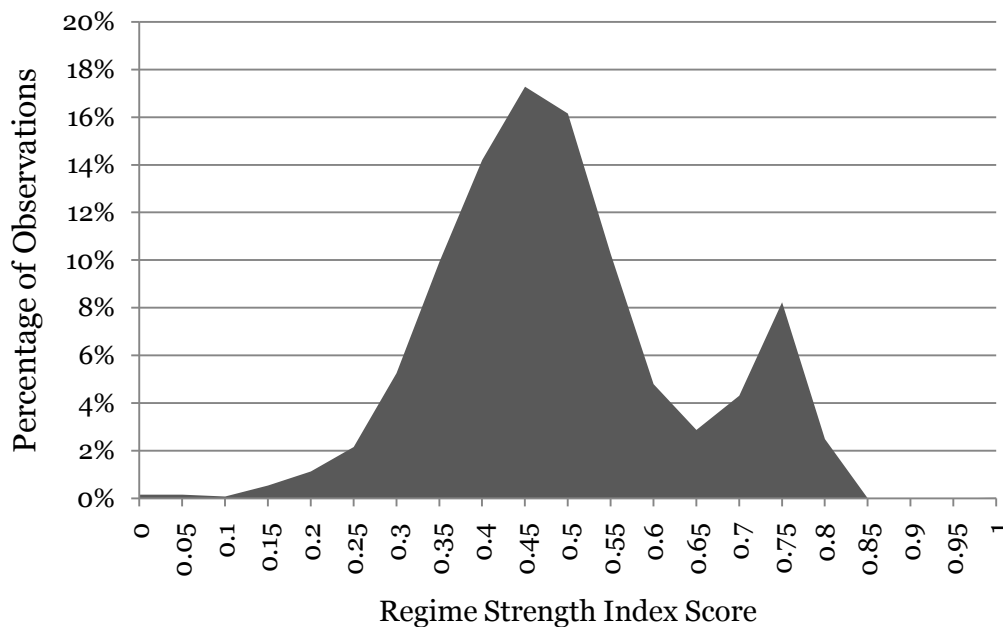
Research Design

If these stability hypotheses are true, then the initiation of extra-institutional challenges against a regime are co-determined by (1) the strength of the regime, (2) the inclusiveness of the regime, and (3) the regime's provision of public and private goods. These are not additive effects; the effect of any of these variables is dependent upon the values of the other two. For this reason, proper testing of these hypotheses requires a three-way interaction of regime strength, regime inclusiveness, and regime spending. This section discusses the measurement of these concepts and then describes how the model must be specified to test this interactive effect.

The strength of the regime is relevant to this question because it determines whether any relationship between spending and stability exists. Spending should have no bearing on regime stability among the strongest regimes because these regimes will not be challenged regardless of how they spend. Rather, a relationship between regime spending and regime stability is expected to exist only where states are weak enough to allow threats from potential challengers to be credible.

I measure regime strength with an original index that accounts for economic development, recent economic shocks, the durability of political institutions, region, regime type, and the presence of destabilizing conflict in neighboring states. This index, which is more thoroughly described in Chapter 3, is an additive index with a range of 0 (weakest) to 1 (strongest) and mean of .515.

FIGURE 4.1: Histogram of Regime Strength Index Score



Regime inclusiveness decides the preferences of the pivotal selector and the preferences of the most likely extra-institutional challenger (see Chapter 2). Regime spending in inclusive regimes deviates toward public goods provision when the regime is strong and to private goods when the regime is weak. The opposite is true of exclusive regimes, which must spend more on public goods when they are vulnerable to the extra-institutional challenger. While regime strength determines whether the extra-institutional challenger's preferences will be met, inclusiveness determines whether public or private goods will be used to meet these demands. As discussed in the last chapter, regime inclusiveness is measured with W , which is winning coalition size as determined by Bueno de Mesquita et al. (2003). This variable ranges from 0 (least exclusive) to 1 (most exclusive) with intermediate values at .25, .50, and .75.

Because citizens and extra-institutional challengers are expected to respond to the overall level of public/private goods provision rather than to spending in specific areas, I collapse the public and private goods indicators discussed in Chapter 3 into a single spending index. It is reasonable to believe that the effect of government provision of one good is dependent upon its provision of another good if both goods comprise individual welfare. For example, increased education spending is more likely to carry favor with the public if it does not come with severe cuts in other kinds of welfare spending. Combining public goods indicators into an index allows me to capture the overall level of public goods provision in a country.

The spending index used here incorporates variation on 11 of the 12 measures of public and private goods used in the previous chapter. One of these indicators, the Przeworski et al. (2000) measure of Educational Attainment, is excluded from the index because the temporal range for this variable has little overlap with the temporal ranges

of the other variables. The remaining components of the index are: (1) repression of political rights, (2) repression of civil liberties, (3) health expenditures, (4) welfare expenditures, (5) education expenditures, (6) adult illiteracy rate, (7) human capital stock, (8) infant mortality rate, (9) hospital beds per 1000, (10) life expectancy at birth, and (11) construction expenditures per worker.¹ Because greater repression scores, illiteracy and infant mortality rates, and construction expenditures are associated with worse public goods provision, the direction of these variables is reverse for the index.²

To better address differences in variance across these indicators, I standardize the index so that the mean of each component is equal to 0 and standard deviations above and below the mean equal 1 and -1, respectively. Then, I rescale the index so that the minimum spending score of 0 indicates the lowest level of public goods provision and the maximum spending score of 1 marks the highest level of public goods spending. A complete table of inter-item correlations is included below.

¹ See Chapter 3 for data sources and discussion of these measures.

² An index score is generated if data are available for at least six of the eleven indicators listed here.

TABLE 4.1 Correlations for Public Goods Index Components*

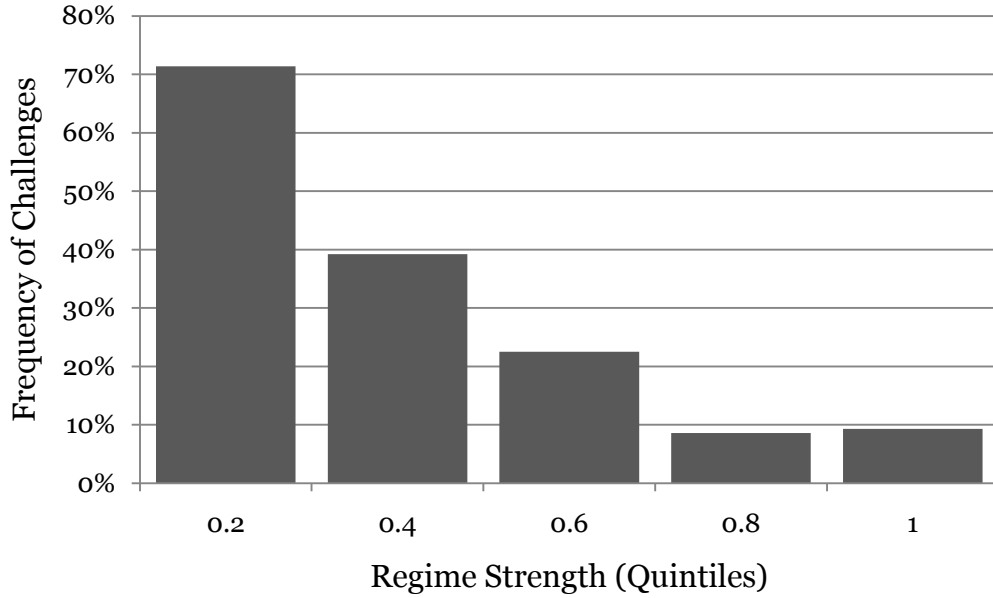
	Repress. of Pol. Rights	Repress. of Civ. Liberties	Educ. Expend.	Health Expend.	Welfare Expend.	Human Capital	Illiteracy Rate	Hospital Beds	Life Expect.	Infant Mort.
Repress. of Liberties	0.847									
Educ. Expenditures	0.346	0.063								
Health Expenditures	-0.197	-0.342	0.769							
Welfare Expenditures	-0.280	-0.497	0.256	0.362						
Human Capital	-0.353	-0.493	-0.001	0.005	0.253					
Illiteracy	0.777	0.780	0.104	-0.183	-0.388	-0.745				
Hospital Beds	-0.555	-0.546	0.169	0.459	0.803	0.355	-0.525			
Life Expectancy	-0.466	-0.586	-0.241	-0.044	0.740	0.609	-0.618	0.645		
Infant Mortality	0.418	0.043	-0.168	-0.017	0.250	-0.464	0.374	0.025	0.051	
Construction Exp.	0.075	0.483	0.078	-0.020	-0.584	-0.811	0.799	-0.580	-0.835	0.156

*The measures of repression of political rights, repression of civil liberties, illiteracy, infant mortality, and construction expenditures are negatively correlated with public goods provision, so the direction of these variables is reversed for the index.

The dependent variable for this analysis is the occurrence of an extra-institutional challenge. While most research separates coup and civil conflict as distinct phenomena, I resist doing so for some important reasons. As I argued in the first chapter, coup and civil war have many common causes and are typically different tactics that are used to achieve similar objectives. Intended coups sometimes result in civil wars when tactical plots against regimes escalate to form larger violent movements. We observe both coups that are executed to place elites in power and coups that occur to turn control of the state over to the citizens. Civil wars also occur to establish both inclusive and exclusive regimes. Accordingly, this extra-institutional challenge indicator is equal to 1 if the state suffers either a civil war or an attempted coup during the year observed.

The indicator for civil war is adopted from the Uppsala Conflict Data Program data set on intra-state conflict, which records conflicts that result in more than 25 battle deaths in one year. This indicator captures civil wars, insurgencies, riots, and other violent conflicts, but it does not necessarily include the coups that so often end regimes. I generate the extra-institutional challenge indicator by combining the Uppsala indicator with the list of attempted coups from Marshall and Marshall (2010). This indicator includes both bloody and bloodless coups and it also includes both successful and unsuccessful coups. Because the dependent variable of interest is the initiation of an extra-institutional challenge and not the method or success of these challenges, it is necessary to include bloodless and failed coup attempts. Country-years earn a value of 1 if no conflict or coup occurred and they take a value of 0 if no conflict occurred that year.

Figure 4.2: Frequency of Extra-Institutional Challenges by Regime Strength



Three independent variables are expected to predict extra-institutional challenges via a three-way interaction. This interaction requires seven independent variables that include the multiplicative term in addition to each constituent variable. Therefore, the basic form of the model is:

$$Pr(Challenge) = Strength + Inclusiveness + Spending + Strength*Inclusiveness + Strength*Inclusiveness*Spending + Inclusiveness*Spending + Strength*Spending + \varepsilon$$

The most important control variables seen in quantitative models of civil conflict are included in the regime strength index. These include per capita gross domestic product, economic growth, conflict in neighboring states, and years since the last regime failure (regime durability). For this reason, I estimate these models without adding these controls as separate variables. In robustness tests, adding a control variable for per capita gross domestic product does not change the results of the tests reported

below. Every component of the three-way interaction is lagged by one year to reduce the bias due to an extra-institutional challenge causing regime change, lower regime strength, and endogenous regime spending.

The dependent variable is a dichotomous indicator that is subject to temporal autocorrelation (the presence of conflict in one period increases the likelihood of conflict in the subsequent period). Some of this autocorrelation is accounted for by the regime stability index, but the temporal dependence in this data can bias results if the appropriate estimation techniques are not adopted.³ For this reason, the models are estimated using binomial general estimating equation (GEE) models.

General estimating equations were developed in the 1980s to better address issues in time-series cross-sectional analysis. They are especially useful where the number of panels exceeds the number of periods in the sample and they are becoming increasingly common in political science journals.⁴ This method allows researchers to account for temporal dependence without including the lagged dependent variable,

³ See Beck, Nathaniel and Jonathan N. Katz. 1995. "What to Do (And Not Do) with Time-Series Cross-Section Data." *American Political Science Review* 89(3): 634-647 and Beck, Nathaniel, Jonathan N. Katz, and Richard Tucker. 1998. "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable." *American Journal of Political Science* 42(4): 1260-1288.

⁴ See Ballinger, Gary A. 2004. "Using Generalized Estimating Methods for Longitudinal Data Analysis." *Organizational Research Methods*, 7(1):127-150 and Maddala, G.S. 1998. "Recent Developments in Dynamic Econometric Modelling: A Personal Viewpoint." *Political Analysis*, 7(1): 59-87. For applications in political science, see Plumper, Thomas and Vera E. Troeger. 2007. "Efficient Estimation of Time-Invariant and Rarely Changing Variables in Finite Sample Panel Analyses with Unit Fixed Effects." *Political Analysis*, 15(2): 124-139 and Zorn, Christopher J. W. 2001. "Generalized Estimating Equation Models for Correlated Data: A Review with Applications." *American Journal of Political Science*, 45(2): 470-490.

which is shown to be an inefficient technique for models using dichotomous and rare dependent variables.⁵

Results

TABLE 4.2: Results of the Three-Way-Interaction

	Coefficient	Std. Error
<i>Inclusiveness</i>	-6.902	(6.579)
<i>Strength</i>	-17.994*	(10.769)
<i>Public Goods</i>	-16.561	(12.283)
<i>Inclusiveness*Strength</i>	16.231	(14.044)
<i>Inclusiveness*Public Goods</i>	14.435	(15.292)
<i>Strength*Public Goods</i>	33.016	(27.005)
<i>Inclusive*Strength*Pub. Goods</i>	-33.422	(31.510)
<i>Constant</i>	7.736	(4.866)

N: 2398, All terms are lagged one year.

Table 4.2 presents the results of the general estimating equation. Due to the complexity of the interaction, we learn little from these coefficients (see Brambor et al., 2006) and the high standard errors for individual parameters do not necessarily negate the robustness of the interaction effect. In fact, only one of these terms has an independent statistically significant effect on regime stability, but some robust patterns emerge when these results are used to generate predicted values and first differences.

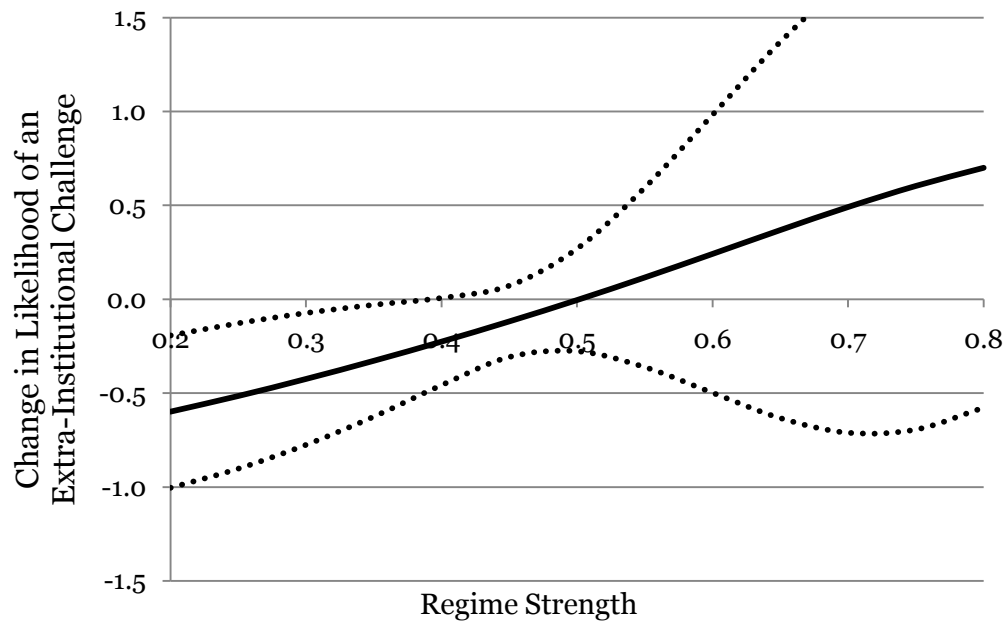
To test the first hypothesis (*H6*), which predicts weak exclusive regimes to face fewer challenges when they provide high levels of public goods, I fix regime inclusiveness at its minimum value ($W = 0$) and observe the effect of increased public goods spending over the range of regime strength. More technically, I generate

⁵ See Liang and Zeger (1986).

predicted values that are used to determine the ranges of regime stability in which a change in public goods provision from one standard deviation below the mean to one standard deviation above the mean significantly increases or decreases the likelihood that an exclusive regime will suffer an extra-institutional challenge.

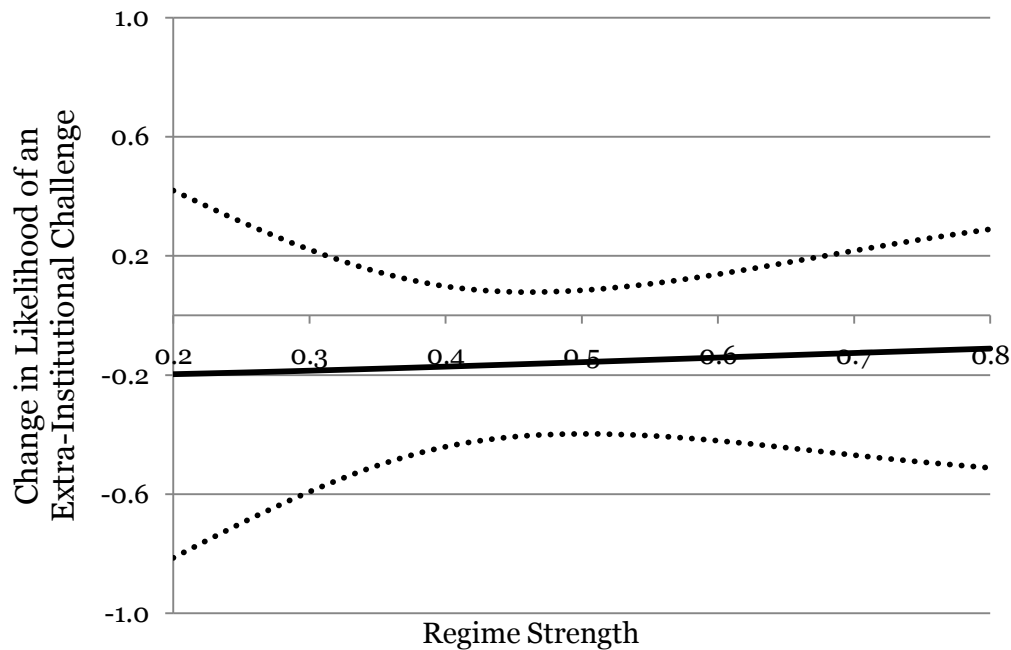
Figure 4.3 illustrates this marginal effect as it varies across regime strength. The figure shows that, despite the large standard errors found in the regression results, the interaction of these variables reveals some conditions under which exclusive regimes can effectively decrease the likelihood of an extra-institutional challenge by increasing public goods provision. When regimes are very weak (one standard deviation below the mean), an increase in public goods provision of two standard deviations decreases the likelihood of an extra-institutional challenge by approximately 50%. As these regimes strengthen, public goods provision offers a lesser advantage to non-democratic states so that when this group of regimes is at its mean strength of .41, regimes providing high levels of public goods are 25% less likely to suffer an extra-institutional conflict relative to those regimes whose public goods provision is one standard deviation below the mean. As expected, strong exclusive regimes gain no advantage from public goods provision. Above the mean regime strength, the confidence intervals around the estimates widen dramatically. This means these regimes cannot decrease the threat posed by extra-institutional challengers by altering patterns of government spending. This is expected because these regimes are strong enough to deter extra-institutional challengers, regardless of how the government opts to allocate its resources.

FIGURE 4.3: Marginal Effect of 2 St. Dev. Increase in Public Goods Provision on the Likelihood of an Extra-Institutional Challenge in Exclusive Regimes



Turning now to inclusive regimes (*H7*), the marginal effects illustrated in Figure 4.4 reveals that there is no relationship between regime spending and regime stability in these states. At no level of regime strength does increased public goods provision significantly reduce the risk of civil war and coup initiation. This interesting non-finding fails to support the relationship between spending and stability that is predicted in this study. Corrupt inclusive regimes that spend little on public goods are not more insulated from extra-institutional challenges as expected. Instead, it would appear that these regimes gain little by reducing the redistribution of wealth while they are weak. In sum, private goods provision does not stabilize inclusive democratic systems in the same way that public goods provision stabilizes exclusive non-democracies.

FIGURE 4.4: Marginal Effect of 2 St. Dev. Increase in Public Goods Provision on the Likelihood of an Extra-Institutional Challenge in Inclusive Regimes



These results do not support *H8*, which predicted the leaders of regimes at intermediate levels of inclusiveness to be unable to use government spending to reduce the likelihood of extra-institutional challenges. In fact, weak semi-inclusive regimes can reduce the incidence of coup and civil war with increased public goods spending. The benefit to these regimes is not as great as it is for exclusive regimes, but the effect remains significant for regimes with *W* scores of .25, .5, and .75. This unexpected finding suggests the leaders of these regimes use government spending to placate the public while they address threats posed by elites by some other means.

This analysis provides little support for the stability hypotheses derived from the formal model in Chapter 2. Although regimes alter their spending patterns to compromise with the demands of viable extra-institutional challengers, these tests show that these attempts at appeasement do not result in the expected reduction of extra-

institutional challenge initiation. In exclusive regimes, public goods spending effectively stabilizes regimes. Though the magnitude of this relationship is weaker among semi-inclusive regimes, we also see that public goods provision has a pacifying effect for regimes at intermediate levels of inclusiveness. But among the most inclusive regimes, spending has no relationship with regime stability. These regimes spend less on public goods while they are vulnerable to extra-institutional challenges, but these results show that doing so does not necessarily result in increased regime stability.

Robustness of Results

I use three robustness checks to confirm these results. First, using a three-way interaction is advantageous when the dependent variable is a rare event because splitting the sample by regime type makes this event even rarer for certain types of regimes (see Figures 4.5 and 4.6 below). With less variation in the dependent variable, standard errors grow and estimates become less accurate. However, using this method also forces estimates where sufficient data may not exist. For this reason, I reassess the hypotheses in a series of split-sample tests on various ranges of regime inclusiveness.

Looking only at more exclusive regimes, I re-estimate the model for a two-way interaction between regime spending and the onset of extra-institutional challenges. Because only exclusive regimes ($0 \leq W \leq .5$) are assessed here, we should observe a negative marginal effect that becomes less significant as these regimes strengthen. This effect is illustrated below. As we saw in the three-way interaction, this hypothesis is confirmed. The leaders of weak exclusive regimes can reduce the likelihood of an extra-institutional challenge by providing a higher level of public goods. The importance of

spending abates as regimes strengthen so that strong exclusive regimes can spend in any way without an increased risk of coup or civil war.

FIGURE 4.5: Split Sample Marginal Effect for Exclusive Regimes

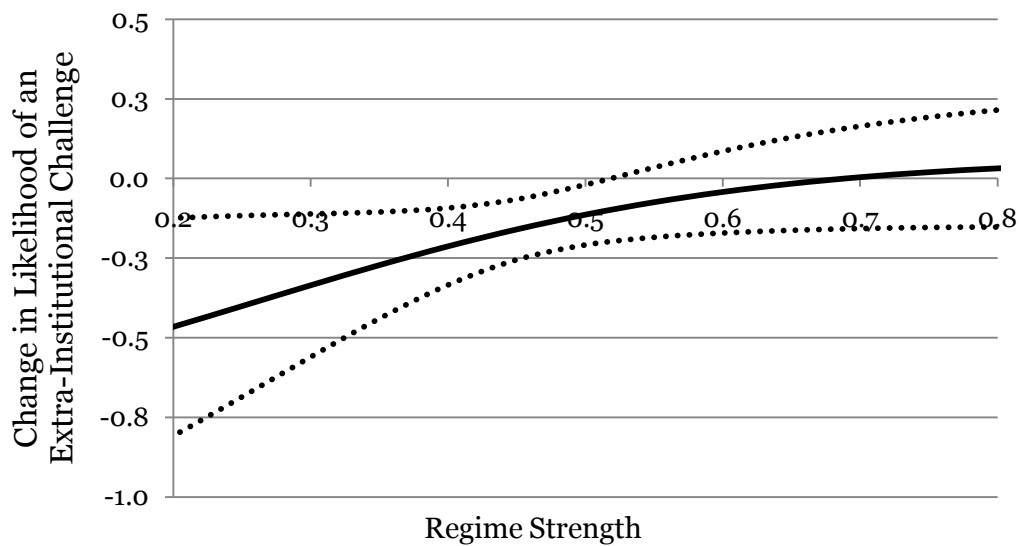
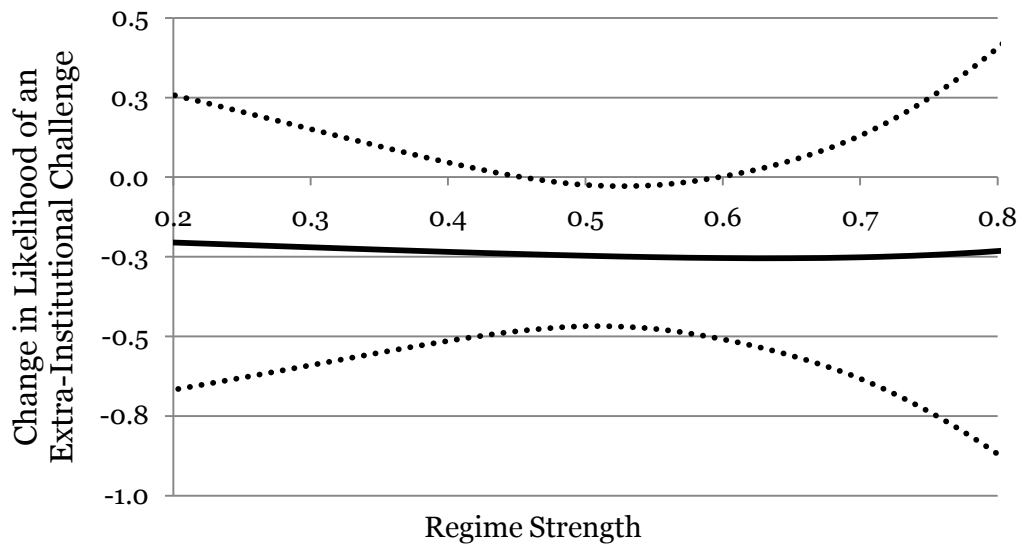


FIGURE 4.6: Split Sample Marginal Effect for Inclusive Regimes



When the sample is limited only to inclusive regimes, the same flat marginal effect appears, although the confidence intervals narrow slightly so that public goods provision has a significant negative effect on the likelihood of an extra-institutional challenge. This significant effect exists over only a very small range of regime strength and is substantively insignificant. A very large majority of inclusive regimes, weak and strong, cannot reduce the likelihood of an extra-institutional challenge with public or private goods provision.

I also perform two more robustness checks by testing the sensitivity of the results to the model estimator choice. A general estimating equation offers an ideal fit for these data, but the results are very similar to less sophisticated techniques. Table 4.3 provides the outcomes of two alternate estimations. First, I use standard logistic regression but include a lagged dependent variable (Lag Challenge) on the right side of the equation. First difference testing shows that these marginal effects are not much different from those illustrated above. Because the dependent variable is rare, I also estimate results using a complementary log-log equation (cloglog). Complementary log-log estimations are a variation on the standard logit model that allows the probability “S-curve” to take an asymmetric form that better fits the very high proportion of observations scoring 0 on the dependent variable. Again, the marginal effects also suggest that exclusive regimes can reduce extra-institutional challenges with public goods provision while there is no relationship between spending and stability among inclusive regimes.

TABLE 4.3: Results of the Logit and Complementary Log-Log Analyses

	<i>Logistic Regression</i>		<i>Complementary Log-Log</i>	
	<i>Coef.</i>	<i>Std. Err.</i>	<i>Coef.</i>	<i>Std. Err.</i>
<i>Challenge (1 Yr Lag)</i>	3.021***	(0.131)	2.479***	(0.104)
<i>Inclusiveness</i>	-1.524	(2.741)	-2.463	(1.649)
<i>Strength</i>	-6.748*	(4.055)	-5.454**	(2.421)
<i>Public Goods</i>	-7.157	(4.533)	-5.534*	(2.969)
<i>Inclusiveness*Strength</i>	6.568	(5.809)	8.152**	(3.605)
<i>Inclusiveness*Public Goods</i>	4.820	(5.490)	5.608	(3.588)
<i>Strength*Public Goods</i>	15.048	(9.451)	12.668**	(6.316)
<i>Inclusive*Strength*Pub. Goods</i>	-15.667	(10.682)	-16.687**	(7.055)
<i>Constant</i>	0.837	(1.883)	-0.745	(1.100)

N: 2398, All terms are lagged one year.

Discussion

Public goods provision has an important effect on the likelihood of extra-institutional challenges in weak exclusive regimes. Here, exclusive regimes can greatly decrease their chances of facing a challenge by spending more on public goods provision. This finding is consistent with the finding in the previous chapter that weak exclusive regimes spend more on public goods relative to strong exclusive regimes.

However, public goods provision provides no benefits, nor does it do any harm to inclusive regimes. At all stages of regime strength, the amount of public goods provided by inclusive governments has no impact on the likelihood of challenge. This finding is somewhat surprising given the findings of the previous chapter. It would seem that weak inclusive regimes are spending less on public goods than they could be, despite the fact that this reduced spending is not associated with a significant decrease in extra-institutional challenges. This puzzle is the focus of the next chapter.

SPENDING AND STABILITY IN TWO AFRICAN REGIMES

While the leaders of exclusive regimes can increase regime stability by providing a higher level of public goods, there exists no robust relationship between regime spending and regime stability among inclusive regimes. The absence of any relationship between spending and stability in these cases suggests that although inclusive regimes spend less on public goods provision while they are vulnerable to extra-institutional challengers (Chapter 3), this reallocation of government funds produces no significant reduction in the risk of coup d'état and civil war initiation (Chapter 4). If public goods provision does not always endanger inclusive regimes to an increased risk of an extra-institutional challenge, then what other strategies do the leaders of these regimes use to insulate their governments? This puzzle highlights an important limitation of the formal model presented and tested in this dissertation. The leaders of weak democracies can avoid challenges from those favoring less public goods provision *without* reducing public goods spending for their constituents.

Here, I use *nested analysis* to generate new hypotheses to explain why public goods provision does not have the predicted negative effect on the stability of inclusive

regimes.¹ Nested analysis synthesizes large-*n* and small-*n* methodologies via case selection that is informed by the results of econometric models. In this case, I use the results of the models presented in Chapter 4 to identify two ideal cases that can be scrutinized and compared to derive a superior understanding of how inclusive regimes can provide high levels of public goods while avoiding the challenges that my model predicts them to face.

I proceed by comparing two weak inclusive regimes that provided extraordinarily high levels of public goods: Republic of the Congo (1992-1996) and Zambia (1991-present). These cases form an ideal controlled comparison because they share similar histories and natural resource-dependent economies. These states also similarly transitioned to democracy during sub-Saharan Africa's "third wave" of democratization; Zambia's first multiparty election occurred in the fall of 1991 and the Republic of the Congo held its transitional election in the summer of 1992.² Following their successful elections, however, Zambia's democracy was flawed but stable while the Congo endured multiple civil wars and transitioned back to autocracy under former dictator Denis Sassou-Nguesso.

Both Zambia and the Congo provided relatively high levels of public goods after their respective democratic transitions, and the formal model described in Chapter 2

¹ This method, described below, was introduced in Lieberman, Evan S. 2005. "Nested Analysis as a Mixed-Method Strategy for Comparative Research." *American Political Science Review* 99(3): 435-452.

² See Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman, OK: University of Oklahoma Press. Authoritative subcontinent-specific accounts of this wave include Bratton, Michael and Nicholas Van de Walle. 1997. *Democratic Experiments in Africa*. New York: Cambridge University Press, Villalón, Leonardo Alfonso and Peter VonDoepp. 2005. *The Fate of Africa's Democratic Experiments: Elites and Institutions*. Bloomington, IN: Indiana University Press, and Joseph, Richard. 1997. "Democratization in Africa after 1989: Comparative and Theoretical Perspectives." *Comparative Politics* 29(3): 363-382.

predicts this allocation of resources to result in threats from challengers who do not favor the redistribution of wealth that occurs under inclusive governance. As expected, the new regime in the Congo was challenged less than five years after its transition to inclusive multiparty democracy, but Zambian democracy survived. How did Zambian democracy succeed despite its low spending on private goods for elites, and to what extent can the Zambian experience offer some insights about the requisites for regime stability for other weak inclusive regimes? I conclude that while post-transition Zambia faced significant elite threats, the viability of these threats was undermined by Zambian electoral rules and political institutions. Electoral rules allowed the ruling party to maintain a super-majority long after its popularity waned and they discouraged the opposition from uniting or disengaging from electoral politics. This made it exceptionally easy for the ruling party to divide the opposition via strategic cooptation. The instructive lesson to be drawn from the case is that the leaders of inclusive regimes may be able to stabilize their governments without reallocating money toward elite interests *if* they can successfully render elite challenges unviable by undercutting their support and splitting their coalitions. In the Zambian case, the incumbent party's ability to do this is directly attributable to the constitutional design of Zambia's political institutions.

This chapter comes to this conclusion only after eliminating a number of rival explanations for the divergent outcomes of the Zambian and Congolese democratic experiences, including colonial heritage, pre-transition politics, civil-military relations, transition type, and economic conditions. Before moving to a comparison of these cases, I more thoroughly introduce nested analysis and justify the selection of these cases.

Nested Analysis

Political scientists continue to debate the merits and shortcomings of formal, quantitative, and context-sensitive research methodologies. These debates have generated increased attention to rigorous social science practices, but they also create unfortunate divisions among researchers that overshadow the obvious benefits of mixed-methods research. At the root of the debate is concern over how cases are selected for qualitative analysis³ and how scholars using large-*n* analysis generate hypotheses without mining data for statistically robust yet logically-dubious causal relationships.⁴

Fortunately, political methodologists have responded to this discord by offering a number of rigorous strategies for merging large-*n* and small-*n* research tools. Among these is nested analysis, which fuses statistical analysis and intensive case research by “nesting” case selection in the results of econometric models.

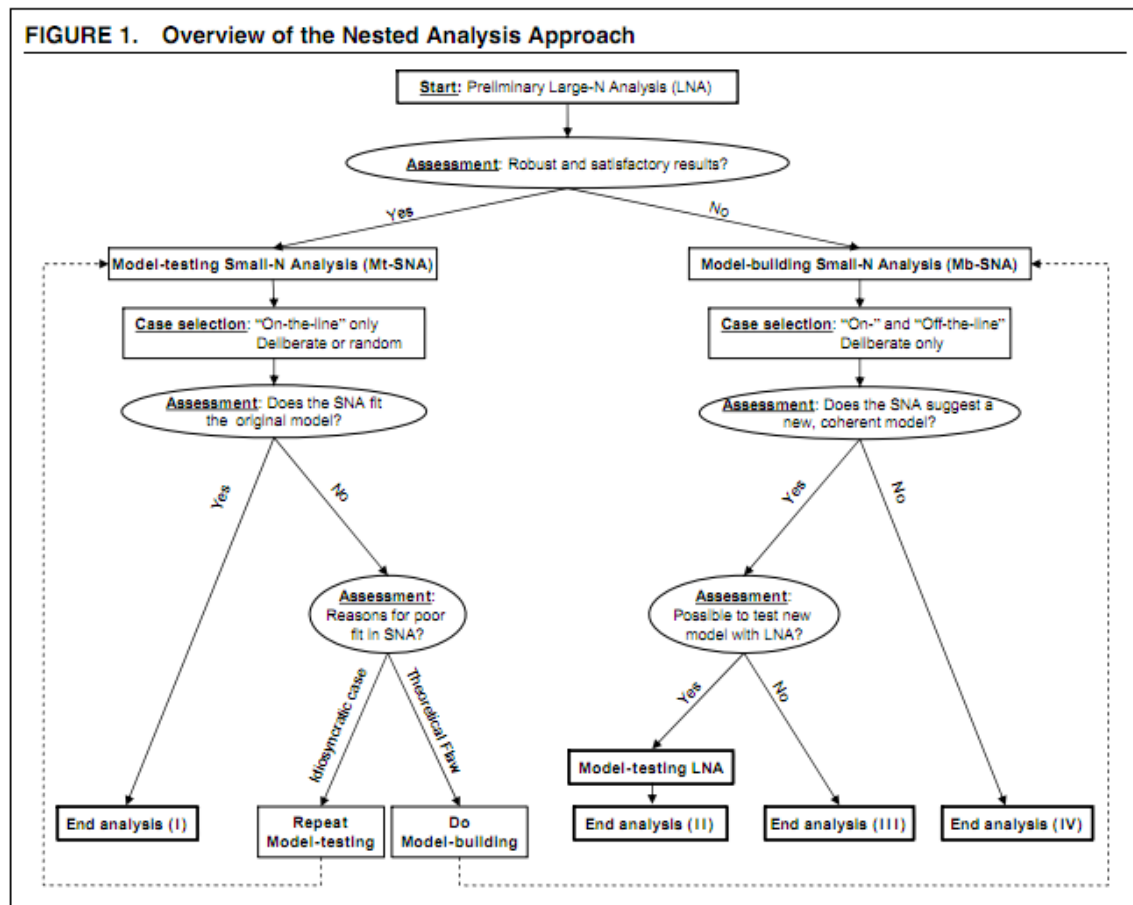
Nested analysis, as described by Lieberman (2005), begins with a large-*n* statistical test, which produces either satisfactory or unsatisfactory results (see Figure

³ See Collier, David and James Mahoney. 1996. “Insights and Pitfalls: Selection Bias in Qualitative Research.” *World Politics*, 49(1): 56–91, Geddes, Barbara. 1990. “How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics.” *Political Analysis*, 2(1): 131–150, Geddes, Barbara. 2003. *Paradigms and Sand Castles: Theory Building and Research Design in Comparative Politics*. Ann Arbor, MI: University of Michigan Press, Gerring, John. 2007. *Case Study Research: Principles and Practices*. New York: Cambridge University Press, King, Gary, Robert O. Keohane, and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton, NJ: Princeton University Press.

⁴ Brady, Henry E. and David Collier (Editors). 2004. *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. Berkeley: Rowman and Littlefield and Berkeley Public Policy Press, Mahoney, James. 2010. “After KKV: The New Methodology of Qualitative Research.” *World Politics*, 62(1): 120–147.

5.1). The non-finding discussed above qualifies as an unsatisfactory result, so cases are selected to perform what Lieberman calls a “model-building small- n analysis.” As opposed to “model-testing” analyses that use cases to further explore robust statistical results, model-building designs incorporate qualitative work to deliberately compare surprising and unsurprising cases to generate new hypotheses about variation on the dependent variable. In the context of this research project, a model-building small- n analysis can be used to explore why high levels of public goods provision spending does not have the predicted negative effect on regime stability in weak inclusive states.

FIGURE 5.1: Nested Analysis



Reproduced from Lieberman (2005), page 437.

Model-building small-*n* analysis is performed by juxtaposing “on-the-line” cases that conform to the prior expectations that were not supported by the statistical tests against “off-the-line” cases that deviated from these prior expectations. In this way, it is much like a most-similar-systems design in which cases are selected for their similarities on the independent variables and differences on the dependent variable.⁵ By choosing very similar on-the-line and off-the-line cases, researchers can more effectively generate new hypotheses because the cases share values on the dimensions that were tested in the unsatisfactory statistical analysis.

Accordingly, the best cases for this model-building small-*n* analysis are two weak inclusive regimes that spent more on public goods provision and less on private goods provision. The on-the-line case that conforms to the unsupported prediction of the formal model must be a case that suffered the extra-institutional challenge that was expected to result from this pattern of resource allocation. Conversely, the off-the-line case that deviates from this prediction must be a regime that spent on public goods but somehow escaped the expected extra-institutional challenge. The subsequent section describes the selection process for the on-the-line case (Republic of the Congo) and the off-the-line case (Zambia) that are evaluated in this chapter.

⁵ For more on most-similar research designs, see Lijphart, Arend. 1971. “Comparative Politics and the Comparative Method.” *American Political Science Review* 65(4): 682-693 and Mill, John Stuart. 1950. *John Stuart Mills’ Philosophy of Scientific Method*. Edited by Ernest Nagel. New York: Hafner Publishing Co.

Case Selection

In 1991, the third wave of democratization reached sub-Saharan Africa. Mathieu Kérékou, the president of Benin, initiated the first of many national conferences that would transform single-party and personalist regimes into multiparty democracies. In the span of half a decade, a subcontinent known for neopatrimonial political systems and strongman dictatorships was transformed into a region of unprecedented democratic experiments. The introduction of democracy to impoverished states with little democratic experience was surprising for democracy scholars at the time, and since then many of these experiments have failed as predicted. Of the approximately 16 African countries that successfully transitioned and held free-and-fair multiparty elections in the early 1990s, few survived into the new century. This subcontinent-wide democratic trial offers a unique opportunity to explore why some states were able to maintain the stability of their new and weak inclusive regimes while others faltered almost immediately.

My unsupported hypothesis pertaining to these regimes stated that regime stability would be determined in part by regime spending; those new inclusive regimes that too hastily redistribute wealth via public goods provision should be at a greater risk of invoking an extra-institutional challenge than those that do not so aggressively contradict the spending preferences of viable elite challengers. To generate hypotheses about why this relationship is not supported in my large- n analysis, I will examine two states that transitioned to democracy, were similarly vulnerable to extra-institutional challengers, and provided high levels of public goods to their populations. Furthermore, the appropriate off-the-line regime must have succeeded while the on-the-line case must

have suffered an extra-institutional challenge. By exploring the differences between these states, I can generate hypotheses about why some public goods providers are less stable than others.

FIGURE 5.2: Candidate Cases for Comparison



Michael Bratton and Nicolas van de Walle (1997) identify 16 sub-Saharan states that successfully transitioned to democracy in the early 1990s. These states are Benin,

Cape Verde, Central African Republic, Republic of the Congo, Guinea-Bissau, Lesotho, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, São Tomé and Príncipe, Seychelles, South Africa, and Zambia. With few exceptions, these states endured comparable colonial experiences, became independent around the same time period, and had similar pre-transition regimes. Because most-similar-systems comparisons are most effective when cases do not differ on important dimensions, I begin my case selection by eliminating anomalies within this set of 16 candidates.

I discount the micro-states because of data limitations and the lack of similarity with other African countries. These anomalous states are São Tomé and Príncipe, Seychelles, Lesotho, and Cape Verde.⁶

The experiences of South Africa and Namibia are truly unique among sub-Saharan states. South Africa's well-known transition from apartheid to democracy was different from any other transition in Africa due to the politics surrounding the emergence of the African National Congress as the ruling party of the country. Furthermore, South Africa was extremely wealthy relative to the rest of the subcontinent and had higher levels of public goods provision than nearly all other sub-Saharan states in the early 1990s, just as it does today.⁷ Namibia's transition to democracy was also exceptional. Most sub-Saharan democracies were preceded by decades of dictatorship under a patrimonial regime, but Namibia did not achieve independence until the end of

⁶ The data sources used in the empirical analysis, including the *Polity IV* data set that is included in the measure of regime inclusiveness, is available only for states with at least 500,000 residents. Of these micro-states, only Lesotho was above this threshold during the temporal period assessed (World Bank Development Indicators, 2007).

⁷ For an insightful discussion of South African exceptionalism, see Seidman, Gary. 1999. "Is South Africa Different?: Sociological Comparisons and Theoretical Contributions from the Land of Apartheid." *Annual Review of Sociology* 25: 419-440.

the 1980s. It did not have presiding dictators around during its transition. Rather, the country rallied behind the leading political party, SWAPO, which earned public favor by being the primary fighting force against foreign rule by the apartheid regime in South Africa.⁸ In this way, the transition to democracy did not occur with a strongman in power. Rather, Namibia's transition to democracy cannot be separated from its transition away from South African colonial rule.⁹ After eliminating these states, the remaining cases that are appropriate for comparison are: Benin, Central African Republic, the Republic of the Congo, Guinea-Bissau, Madagascar, Malawi, Mali, Mozambique, Niger, and Zambia.

TABLE 5.1: Characteristics of Candidate Cases

	<i>Transition Year</i>	<i>Pre-Transition Regime**</i>	<i>Post-Tran* Strength</i>	<i>Post-Tran* Pub. Goods</i>	<i>Challenge Within 5 Yrs</i>
<i>Benin</i>	1991	Personalist	0.43	0.42	YES
<i>Cent. Afr. Rep.</i>	1993	Personalist	0.32	0.35	YES
<i>Congo (Rep. of)</i>	1992	Single Party	0.38	0.58	YES
<i>Guinea-Bissau</i>	1994	Personalist	0.37	0.32	YES
<i>Malawi</i>	1994	Personalist	0.43	0.55	NO
<i>Mali</i>	1992	Personalist	0.35	0.37	YES
<i>Mozambique</i>	1994	Single Party	0.44	0.35	NO
<i>Niger</i>	1992	Personalist	0.29	0.30	YES
<i>Zambia</i>	1991	Single Party	0.33	0.47	NO

* *The regime strength and public goods scores are the averages for the three years following the transition year.*

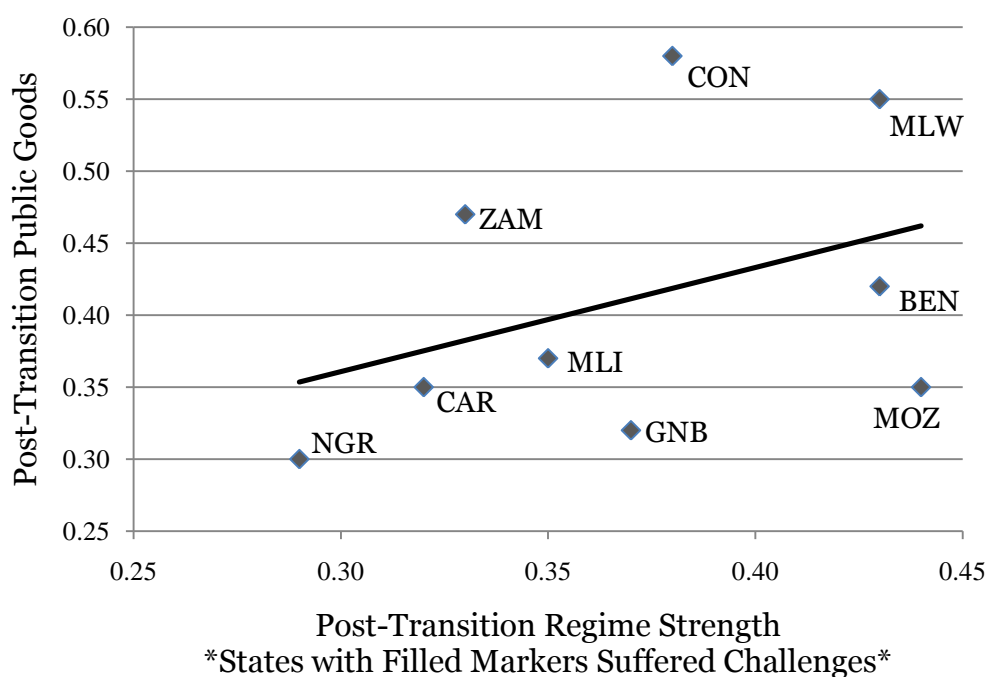
** *See Geddes' (1999) trichotomy of personalist dictatorships, single-party systems, and military juntas.*

⁸ Namibia, formerly known as German Southwest Africa, was given to South Africa by the League of Nations after Germany's defeat in the First World War.

⁹ For further discussion of the Namibian democratic transition, see Freeman Jr., Chas. W. 1989. "The Angola/Namibia Accords." *Foreign Affairs* 68(3): 126-141 and Cliffe, Lionel and Ray Bush. 1994. *The Transition to Independence in Namibia*. Boulder, CO: Lynne Reiner.

A successful controlled comparison must evaluate cases that spend similar amounts on public goods provision relative to their regime strength but endure different outcomes. The table above presents some of the information that informs case selection. In addition to the pre-transition regime type and transition year, I also include the three-year post-transition averages for regime strength and public goods provision.¹⁰ The final column indicates whether the regime suffered an extra-institutional challenge - here defined as a coup or civil conflict that killed more than 25 people - in the five years following the year of the transition.¹¹

FIGURE 5.3: Post-Transition Regime Spending and Regime Strength



¹⁰ See Chapter 3 for more on the regime strength measure and Chapter 4 for details about the public goods index.

¹¹ The reader should note that this is also the dependent variable used in the quantitative analysis performed in the previous chapter.

In Figure 5.3, states are given a position in the scatter plot according to post-transition regime strength and post-transition public goods provision. One immediately notices the existence of a positive relationship between regime strength and public goods provision. Stronger new democracies spend more on public goods than weaker new democracies, and this result is congruent with the tests on the spending hypotheses that were presented in Chapter 3.

States that did not suffer an extra-institutional challenge (Zambia, Mozambique, and Malawi) are represented by unfilled markers while those that were challenged have filled markers. The absence of any robust relationship between regime spending and regime stability is apparent. Zambia, despite being weak and spending large amounts on public goods, remained stable. Meanwhile, Mozambique spent very little on public goods and achieved stability.

The two strongest regimes - those that were *least* vulnerable to extra-institutional challenges (Malawi and Mozambique) - were among the three of the nine cases that did not suffer a challenge. Stronger states are less likely to suffer challenges, so this is unsurprising. This does, however, help to identify the interesting exception to this general pattern. Zambia, despite being the third weakest state of the nine examined here while providing a high level of public goods, maintained stability and did not suffer an extra-institutional challenge following its successful transition to democracy. This case, more than the much stronger states of Malawi and Mozambique, is the most appropriate “off-the-line” regime for this nested analysis.

The regime that best illustrates the *a priori* expectation about the relationship between spending and regime stability is the Republic of the Congo. The Congo was of intermediate strength, but provided higher levels of public goods after its transition than

any other country in the sample. As I expected, this high degree of public goods provision came at an important cost. Elites were not appeased and the country quickly fell into war.

Zambia and the Congo make for a fascinating controlled comparison that will be the topic of the rest of this chapter. Both states transitioned to democracy from single-party rule under the leadership of an autocrat who had been in power for decades. After the transition, both states were similarly weak and spent much more on public goods provision than other sub-Saharan third wave democracies. The formal model predicts both states to suffer challenges for this aggressive redistribution, but Zambia escaped this fate.

Extant work on African politics and democratic consolidation more generally suggests four potential explanatory variables that warrant closer investigation: (1) Colonial Heritage (2) Post-Independence Political History, (3) Economic Conditions, and (4) Post-Transition Politics.

Colonial Heritage

Much has been made of the long-term effects of colonial policies, and this is especially true in the study of African politics.¹² Following the infamous “Scramble for

¹² Some important work in this literature includes Bernhard, Michael, Timothy Nordstrom, and Christopher Reenock. 2001. “Economic Performance, Institutional Intermediation, and Democratic Survival.” *Journal of Politics*, 63(3): 775–803, Crowder, Michael. 1964. “Indirect Rule: French and British Style.” *Africa: Journal of the International African Institute*, 34(3): 197–205, Grier, Robin M. 1999. “Colonial Legacies and Economic Growth.” *Public Choice*, 98(3-4): 317–335, Nunn, Nathan. 2007. “Historical Legacies: A Model Linking Africa’s Past to its Current Underdevelopment.” *Journal of Development Economics*, 83(1): 157–175, and Nunn, Nathan. 2009. “The Importance of History for Economic Development.” *Annual Review of Economics*, 1(1): 65–92.

Africa” that preceded the 1885 Conference of Berlin, Africa was carved and divided between the British, French, Belgians, Italians, Portuguese, Spanish, and Germans.¹³ Whether the various colonial styles that developed in these colonies affected post-independence politics continues to be hotly debated.

Most literature focuses on the difference between the two predominant colonizers on the continent: Britain and France.¹⁴ Britain, which also possessed colonies in the Americas, the Middle East, and South Asia, occupied much of southern and eastern Africa. These colonies were not Britain’s primary colonial holdings; while the world considered India to be “the crown jewel of the British Empire,” Britain’s possessions in southern Africa were nicknamed “the fleas in the Queen’s blanket.” Still, Britain’s holdings were both valuable and costly. Vast mineral deposits were found throughout these “fleas” in the 1860s and 1870s, and Britain consolidated control only after long and costly wars such as the Boer War in South Africa, the Asante War in Ghana, and the Mahdist rebellion in Sudan.

Britain’s colonial policy reflected the fact that the empire was stretched thin and was hesitant to invest heavily in its colonies. Leading via “indirect rule,” the British opted to govern through indigenous leaders rather than replace them with European administrators. Proponents of indirect rule claimed that this method of colonial governance empowered African leaders and left relations between the state and civil society intact, but it also allowed Britain to govern all of British Africa and its 43 million

¹³ See Herbst, Jeffrey Ira. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton, NJ: Princeton University Press.

¹⁴ This distinction is thoroughly discussed in: Finer, Samuel. 1997. *The History of Government, Vol. I-III*. New York: Cambridge University Press and explored empirically in: La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny. 1999. “The Quality of Government.” *Journal of Law, Economics, and Organization* 15(1): 222-279.

residents with only 1100 white administrators and 900 white police officers.¹⁵ Furthermore, to prop up the local chiefs who were empowered by the system of indirect rule, the British sought to limit modernization, urbanization, and other social forces that might disrupt indigenous power structures. There are glaring exceptions like Sierra Leone, Nigeria, and Zimbabwe, but former British colonies generally had more successful democratic transitions than the former colonies of other European powers.¹⁶

The French colonial style was markedly different from the British style, and historians trace the cause of this difference to France's unique position at the end of the nineteenth century. While the British Empire was at the apex of its power in the nineteenth century, the French experienced multiple defeats during this time period. In living memory, France had expanded under Napoleon to control much of central and southern Europe, but the defeat of Napoleon and the subsequent Congress of Vienna put France at a disadvantage relative to other powers. Its most productive colony in the new world, Haiti, successfully revolted at the beginning of the century. The loss in the Franco-Prussian war of 1870-1871 robbed France of Alsace and Lorraine - the territories at the heart of France's most productive industrial area. In contrast to this string of debilitating defeats, France did enjoy success in the consolidation of its power over Algeria and West Africa, and this is where it poured its resources.¹⁷

¹⁵ This argument is made by Bernhard, Michael, Christopher Reenock, and Timothy Nordstrom. 2004. "The Legacy of Western Overseas Colonialism on Democratic Survival." *International Studies Quarterly*, 48(1): 225–250.

¹⁶ For a comparative evaluation of colonial policies, see Nugent, Paul. 2004. *Africa Since Independence: A Comparative History*. New York: Palgrave Macmillan.

¹⁷ Underdevelopment in French colonies is sometimes attributed to Catholicism and "socialist law" that does not protect private property rights to the same extent as British common law. See La Porta et al., 1999.

While the British sought to leave indigenous structures intact through indirect rule, France was eager to assimilate African elites into the French polity. Its ultimate goal was to educate a ruling class of Africans who would participate directly in the politics of the French Republic and they did this with extensive investment in education and African participation in the administration of the colonies. Here, an important distinction must be made. While the British involved Africans in government via indigenous political structures, the French created a new class of political elites and aggressively sought to reduce the role of indigenous politics, which posed a considerable obstacle to successful assimilation into the French polity. In fact, assimilated African elites were forced to renounce indigenous traditions to become true black Frenchmen. Scholars link this disruption of civil society to the many political failures of former French colonies.¹⁸

Zambia's experience as a British colony (Northern Rhodesia) and the Republic of the Congo's French heritage could explain the success of the democratic transitions, but other scholars believe the differences in colonial styles are exaggerated. Although the British indirect rule and French assimilation models are very different, Herbst (2000) notes that all African colonies saw a dearth of investment and intentional social stratification that was used to separate the elites doing the will of the colonizers from indigenous Africans who were not privy to British and French institutions.

¹⁸ See Betts, Raymond Frederick. 2005. *Assimilation and Association in French Colonial Theory, 1890-1914, 2nd Edition*. Lincoln, NE: University of Nebraska Press and Lewis, Martin Deming. 1962. "One Hundred Million Frenchmen: The "Assimilation" Theory in French Colonial Policy." *Comparative Studies in Society and History* 4(1): 129-153. Nugent (2004) also highlights the similarities between French colonial policy and the harsh Portuguese system of "Lusotropicalism."

Colonial Heritage of the Republic of the Congo

The colonial history of the Republic of the Congo was greatly influenced by the Congo's geography, which both encouraged and prohibited extensive colonial investment. On the one hand, the territory that comprises the modern Congo was valuable real estate for European colonizers in the last quarter of the nineteenth century. The Congo River, the country's namesake, forms much of its southern border and it offered the most feasible route to central Africa for foreign traders, missionaries and explorers. The importance of this route to the heart of Africa caused the French to bargain hard for the territory and King Leopold of Belgium conceded the northern bank of the river. The Congolese capital of Brazzaville, founded on the navigable stretch of the river, is named for Pierre Savorgnan de Brazza, the first Frenchman to explore the area.

On the other hand, the Congo was one of the least accessible places in colonial Africa. Bisected by the equator, the tropical climate and dense forests were difficult terrain for the Europeans lacking immunity to tropical diseases.¹⁹ Furthermore, Europeans could not simply sail upstream to reach most of their territory; the terminus

¹⁹ The relationship between tropical climate and under-investment in colonies is documented by Acemoglu, Daron, Simon Johnson, and James Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review*, 91(5): 1369–1401, Acemoglu, Daron, Simon Johnson, and James Robinson. 2002. "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution." *Quarterly Journal of Economics*, 107(4): 1231–1294, Acemoglu, Daron, Simon Johnson, and James Robinson. 2003. "Disease and Development in Historical Perspective." *Journal of the European Economic Association*, 1(2-3): 397–405, Bhattacharyya, Sambit. 2009. "Root Causes of African Underdevelopment." *Journal of African Economies*, 18(5): 745–780, and Bleaney, Michael and Arcangelo Dimico. 2010. "Geographical Influences on Long-Run Development." *Journal of African Economies*, 19(5): 635–656. For a rival perspective, see Cinyabuguma, Matthias M. and Putterman, Louis. 2011. "Sub-Saharan Growth Surprises: Being Heterogeneous, Inland, and Close to the Equator Does Not Slow Growth Within Africa." *Journal of African Economies*. Forthcoming.

of the Congo River is home to hundreds of miles of the world's most powerful rapids. The French established Brazzaville 200 miles from the Atlantic at the beginning of the navigable portion of the river, and it became the most important city in all of French Equatorial Africa. Beyond Brazzaville, however, the Europeans scarcely penetrated and never invested.

The economy was extractive and most colonial presence was limited to the capital city and major port town of Pointe Noire. The administration was irrevocably weakened by the Second World War, and African nationalism and *négritude* spread across much of French Africa. Congo was granted independence in August 1960 after limited riots and jockeying between ethnic groups and other parties interested in power in the new Congo.

Unlike other leaders from French Africa like Senegal's Leopold Senghor, the first leader of the Congo was not an assimilated elite. Fulbert Youlou, a Roman Catholic priest from the Brazzaville area, did not receive a formal education in France and he drew strong support from his Bakongo ethnic group living in the southern part of the territory. While in power, Youlou served French interests, but he clearly identified as Congolese first and used indigenous affiliations to build his political coalition. Like the Congo's later leaders, Youlou relied on ethnic support and *not* on his elevated status as a citizen of the French polity. This casts some doubt on the causal mechanism that links French colonies to unsuccessful democratic transitions. Relations between the elites in government and civil society were not severed in the Congo. Youlou could not have come to power without them.²⁰

²⁰ More information on the short-lived Youlou era can be found in Clark, John F. 1994. "Elections, Leadership and Democracy in Congo." *Africa Today* 41(3): 41-60.

The Colonial Heritage of Zambia

Geography also influenced the colonial experience of Zambia. Being farther from the equator, the temperate Zambian climate made the area more amenable to white colonial administrators and settlers. However, this advantage was checked by the fact that Zambia is landlocked and was pinned between the Portuguese colonies of Angola and Mozambique. Zambia was claimed relatively late in the scramble; the British only began to establish their presence there after the scramble in Lord Salisbury's attempt to quickly claim British colonies from "Cairo to the Cape." Explorers went north from the Cape Colony. The most famous of these was David Livingston, for whom the area's colonial capital was named.

Zambia was also an extractive colony. Cecil Rhodes acquired the rights to the minerals in what was then called Northern Rhodesia and the construction of railroads enabled the transport of copper and other metals to African ports for export. British presence was mostly limited to the railroad cities. White settlers moved in from the south to take advantage of the arable land while many Africans worked the copper mines. Lusaka, the most important railway intersection in the country, replaced Livingston as the capital in the early twentieth century.

The significant presence of whites in Rhodesia undermined the oft-mentioned advantages of British indirect rule. Leaders of indigenous structures were not granted authority in this part of British Africa. Rather, the white minority dominated the administration of Northern Rhodesia as it did in Southern Rhodesia (Zimbabwe) and the Cape Colony. For this reason, one might argue that this system went farther than the French assimilation system in severing state-civil society relations for black Africans.

Further undermining the conventional argument about the merits of British rule is the fact that Kenneth Kaunda, Zambia's first leader, did not emerge from an indigenous aristocracy that was empowered by the British. Rather, Kaunda worked as a primary school teacher and miner before getting into politics at the local level.

Much has been made of the contrasting colonial styles of the French and British, but these differences do little to explain the outcomes of the democratic transitions in Zambia and the Republic of the Congo. The French policy of assimilation did not destroy state civil-society relations by widening the cleavage between the indigenous masses and French-assimilated elites. Rather, the first leader relied on his ethnic base to come to power and lacked the French university education held by other African nationalists in Francophone Africa. British indirect rule did not empower indigenous leaders and uphold state-civil society relations. Whites were granted power in Northern Rhodesia and Kenneth Kaunda was not a member of this indigenous elite class.

Here, the similarities in colonial experience are more striking than the differences. Both states were extractive colonies, and both colonies saw concentrated investment in key cities and little European presence in much of the country. Accordingly, the argument that British colonizers left Zambia in a more favorable position than France left the Republic of the Congo is unpersuasive.

Pre-Transition Politics

Perhaps the starkest differences between the Zambian and Congolese cases can be found in the political histories between independence and their respective democratic transitions. In 1991, Zambia had been under the leadership of one man -

Kenneth Kaunda - for the entire duration of its history as a sovereign state. The Republic of the Congo, however, was embroiled in Cold War politics, susceptible to frequent coups, and saw tumultuous decades before the relative stability of the dictatorship under Denis Sassou-Nguesso. This section briefly reviews the literature on the effects of pre-transition politics and then returns to these cases for closer examination.

Comparativists responded to the wave of democratic transitions with spirited debates over the relevance of pre-transition political institutions to the success of democratic experiments. This literature is thoroughly reviewed elsewhere, but the major insights from these debates are recounted below.²¹

To understand the positive and negative effects of pre-transition non-democratic institutions, researchers must first identify the ways in which pre-transition non-democratic systems vary. These efforts have been hindered by two obstacles: (1) the predominant focus on democratic exceptionalism, and (2) the proliferation of regime typologies. The first of these problems is endemic to the comparative literature and it gives rise to measures that group non-democratic regimes into a residual category. The popular *Polity* index and the dichotomous democracy/dictatorship identifier used in Adam Przeworski et al.'s research provide two examples. In the former case, non-democratic regimes are only evaluated according to how dissimilar they are from democracies. As has been pointed out elsewhere, there are many ways to be non-

²¹ For comprehensive summaries of this literature see Geddes, Barbara. 1999. "What Do We Know About Democratization After Twenty Years?" *Annual Review of Political Science*, 2(1): 115-144 and Munck, Gerardo L. 1994. "Democratic Transitions in Comparative Perspective." *Comparative Politics*, 26(3): 355-375.

democratic and states sharing a similar *Polity* score may have little in common.²² In the latter case, no variation in non-democratic regimes is recognized because scholars are interested solely in understanding the unique virtues of democracy.

There have been many efforts to better understand the similarities and differences among non-democratic regimes, but this line of inquiry has resulted in numerous typologies rather than any commonly-accepted understanding of non-democratic regime types. Geddes' simple trichotomy of personalist dictatorships, single-party systems, and military regimes has become the leading framework for classifying non-democratic regimes, but this classification system is undermined by the very large share of regimes that qualify as hybrids of two or even all three of these ideal types. Rival typologies from Linz and Stepan, Bratton and Van de Walle, and others attempt to generate more nuanced typologies by adding categories such as "sultanistic dictatorship," "settler oligarchy," and "plebiscitary one-party systems." Added nuance means statements about these regimes are less generalizable and drawn from a smaller universe of cases, so causal mechanisms become unclear as the number of types increases. Because scholars are prone to inventing their own typologies, this literature has resulted in many findings and many contradictory opinions. This led O'Donnell and Schmitter (1986) to suggest that generalizations made across non-democratic regimes and authoritarian breakdowns only obscure the fact that politics is random and cannot be determined by structural conditions.

Despite these obstacles to the study of the relationship between pre-transition politics and the success of subsequent democratic transitions, scholars have generated a

²² See, for example, Gleditsch, Kristian S. and Micahel D. Ward. 1997. "Double Take: An Examination of Democracy ad Autocracy in Modern Polities." *Journal of Conflict Resolution*, 41(3): 361-383.

number of ideas on this topic. Generally, these ideas can be grouped into theories that consider (1) the personalization of the pre-transition regime and (2) civil-military relations in the pre-transition regime.

Personalization of the Pre-Transition Regime

Non-democratic leaders are commonly evaluated on the degree to which they act independently of the parties and coalitions that place them in power. Very personalized regimes are those in which the dictator faces little threat of replacement by the party or military junta to which the leader belongs. This is not to say that a party or military apparatus does not exist; it is only to say that leaders are relatively unconstrained by these groups and have sufficient control over their memberships. In the African context, such regimes have been called neopatrimonial because the political system revolves around the clientelism of a strongman.

Scholars generally agree that a high degree of personalization has an adverse effect on the democratic transitions that end these regimes. Personalist dictators stay in power by putting allies into positions of power. In some cases, these leaders intentionally surround themselves by the weak to reduce internal threats to their power.²³ According to Huntington, Geddes, and others, the consequence of this institutional arrangement is that personalist dictators have no means of securing a favorable bargain once their regimes fall. They do not gain security from widespread support within the military, nor can they rely on the support of a party that selected

²³ The use of eunuchs in both China and pre-colonial African societies provides a more visible example of this tendency.

them to lead the government. Lacking this safety net, the leaders lose all of their influence when they leave executive office and cannot secure a favorable post-transition bargain. As a result, they fight against democratization and this initial violence considerably weakens the young democracy.²⁴

Despite the fact that both Zambia and the Republic of the Congo had leaders who had been in power for more than a decade before their democratic transitions, neither are classified as personalist regimes by Barbara Geddes (1999) or Michael Bratton and Nicholas van de Walle (1997). Instead, both regimes are grouped with single-party systems. Both states were led by executives with consolidated holds on power, but these leaders were similarly propped up by a powerful single-party apparatus.

Kenneth Kaunda rose to political prominence in Zambia before independence and was jailed by the British multiple times in the 1950s. While serving his last prison term in 1959-1960, his political allies broke from the Zambian African National Congress (ZANC) to create the United National Independence Party (UNIP). Upon his release, Kaunda took charge of this popular party, allied UNIP with the ZANC, and positioned himself to become the first leader of independent Zambia.

During his rule, Kaunda moved the country away from multiparty democracy and insulated his leadership tenure by strategically co-opting rivals within his own party. Constitutional revisions in 1972 are remembered for turning Zambia into a “one-party participatory democracy,” but these revisions also reorganized UNIP into a unicameral assembly governed by a strong Central Committee. There was some semblance of executive constraints in this system, although they were rarely exercised. Kaunda

²⁴ See Geddes, Barbara. 1999. “Authoritarian Breakdown: Empirical Test of a Game Theoretic Argument.” (Unpublished Manuscript) and Huntington (1991).

appointed the members of the Central Committee, and the only legal candidate for the presidency was the candidate chosen by the Central Committee. The National Assembly could overrule the decisions made by the Central Committee, but this required dangerous organization against the only legal political party in Zambia.

Shortly after Congolese independence, Fulbert Youlou was swept out of power and replaced by a military government that aligned itself with the Soviet Union. A series of coups reorganized the political elites of the Congo during the 1960s, and relative stability was only achieved with the rise of the militarized *Parti Congolais du Travail* (PCT) in 1969. Denis Sassou-Nguesso, who would rule the country from 1979 until the 1992 democratic transition, was a founding member of the party and assumed the role of Director of Security.

As the Director of Security for the new regime, Sassou was uniquely positioned to marginalize his rivals and rise to power in times of crisis. One such crisis occurred in 1977 when the leader of the party, Marien Ngouabi, was assassinated in a suicide attack. Sassou was selected to head the Military Committee of the Party, which temporarily controlled the government and selected a successor. Two years later, Sassou and his allies were able to bring down this successor with corruption charges. As the head of the military branch of the party, Sassou was the clear successor and he rose to power with unanimous support in 1979. As leader of the PCT and President of the Congo, Denis Sassou-Nguesso did not rewrite the constitution to grant himself more control. In fact, he subjected himself to intra-party elections in 1984 and 1989, winning both times.

Kaunda and Sassou were similarly propped up by strong single-party systems, and it is important to note that neither leader created or disbanded their respective parties. Kaunda and Sassou both built the necessary alliances that allowed them to rise

to power early in the lives of these parties. Neither abandoned the party to form a more personalist dictatorship, although both commanded the party and successfully marginalized rival intra-party factions. Given these similarities, it is doubtful that the personalization of the pre-transition regime can explain why Zambia's democratic transition was more successful than that of the Republic of the Congo. In fact, Kaunda went to greater lengths to personalize his party than did Sassou.

Civil-Military Relations in the Pre-Transition Regime

While scholars generally agree that personalized non-democratic regimes were more likely to suffer post-transition challenges, the effect of pre-transition military regimes on democratic experiments is more ambiguous. On the one hand, some claim the military can secure for itself a better post-transition fate because it continues to possess the strength to topple the government. This strength compels the new government to maintain its commitments to the military so there is less chance of reneging.²⁵ In many cases, this residual strength was critical for the success of "pacted democracies" in which the military exchanged private rents for a promise to stay out of the civilian post-transition government.²⁶ However, there are also reasons to believe that transitions from militarized non-democratic regimes will be more problematic. Geddes (1999) notes that military elites are more likely to fall victim to internal splits

²⁵ Agüero, Felipe. 1995. *Soldiers, Civilians, and Democracy: Post-Franco Spain in Comparative Perspective*. Baltimore: Johns Hopkins University Press and Munck (1994).

²⁶ In addition to Agüero (1985), see Hagopian, Frances. 1990. "Democracy by Undemocratic Means?" *Comparative Political Studies*, 23(2): 147–170 and Rasler, Karen. 1996. "Concessions, Repression, and Political Protest in the Iranian Revolution." *American Sociological Review*, 61(1): 132–152.

because commanding officers maintain independent sources of power from their own loyal troops. The exceptional residual power of ousted military regimes makes them a threat to political order in the new democracy for years to come.

The literature does not produce a persuasive reason for believing civil-military relations in the prior regime will predict the success of subsequent democratic regimes, but one of the more apparent differences between Zambia and the Republic of the Congo is the fact that the military were at the forefront of Congolese politics for much of its post-independence history. Zambia did not suffer a successful coup between independence and the 1991 democratic transition, but the Congo was plagued by coup during the 1970s and Denis Sassou-Nguesso came to power via coup himself. Whereas Kenneth Kaunda framed himself to be a civilian leader and distanced himself from the military, Sassou maintained his affiliation with the military, loaded the armed forces with members of his own Mbochi ethnic group, and retained the rank of colonel.

But could this difference explain the divergent outcomes of the democratic transitions in Zambia and the Republic of the Congo? While it is certainly true that Sassou was more personally tied to the military in the Congo, this did not make Sassou's regime immune to military-backed opposition. In fact, the military revolted against Sassou as late as 1987, and this uprising could only be contained with the assistance of the French military.²⁷

Although the military was not as prominent in Zambian politics, it would be an exaggeration to claim that the military had no history of intervention in Kaunda's

²⁷ Clark, John F. 1998. "Foreign Intervention in the Civil War of the Congo Republic." *Issue: A Journal of Opinion*, 26(1): 31–36.

regime. Although Zambia did not suffer a successful coup at any time before the democratic transition, coups were attempted and plots were foiled. The frequency of these attempts increased in the last decade of Kaunda's regime. Coups were plotted or attempted in 1980, 1981, 1988, and 1990. The last of these coups occurred 25 June 1990, less than six months before Kaunda agreed to the constitutional reforms that allowed for multiparty elections in 1991. The leaders of these coups, including General Christon Tembo, became prominent members of the opposition in the post-transition period.

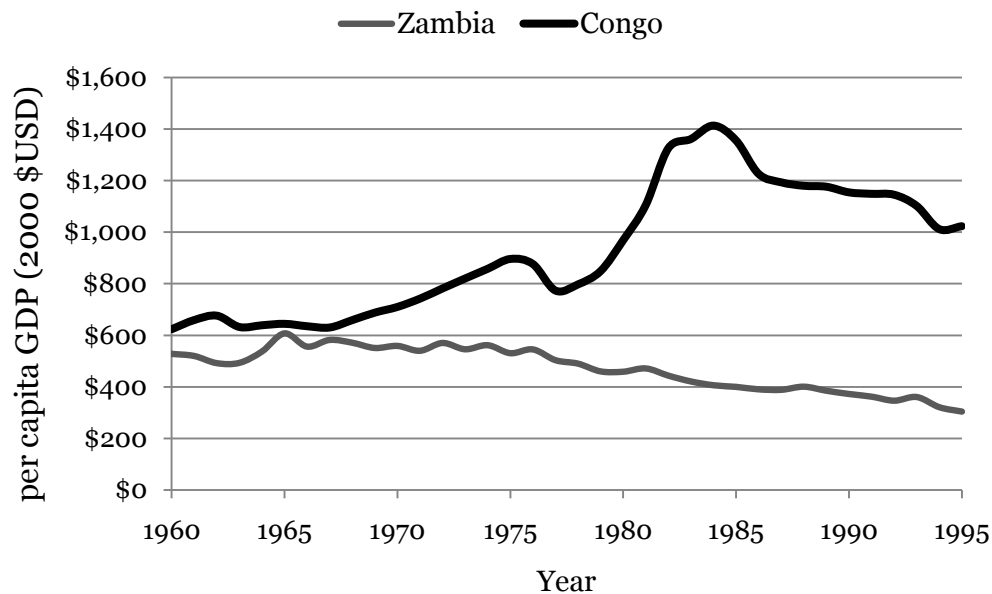
In summary, pre-transition politics do little to explain the outcomes of the democratic transitions in Zambia and the Republic of the Congo. Sassou's regime appeared to be more militarized because he rose to power through the military and retained the title of colonel, but the military was no less involved in Zambian politics under the UNIP single-party regime. Both suffered major challenges within five years of the democratic transition, so arguments relying on norms of intervention fall short in explaining these states' post-transition experiences. Furthermore, the regimes were similarly led by strong executives operating within a single-party framework.

Economic Conditions

Both Zambia and Congo were relatively poor countries at the times of their transitions and they faced the typical challenges to development in sub-Saharan Africa. They were both led by single-party states that siphoned revenue from state coffers. Both economies were burdened by debt and by exploitative contracts with foreign corporations. In the case of the Congo, Western corporations like Chevron, Elf-Aquitaine, Halliburton, and Occidental swept into the region at the end of the Cold

War.²⁸ Copper conglomerates had long taken economic decisions out of the hands of the Zambian government. Finally, both economies suffered from pronounced cleavages between urban and rural welfare. Zambia and Congo are two of the most urbanized countries in the region, but life expectancy, education, and access to public services dropped precipitously outside of Lusaka and Brazzaville/Pointe Noire.

FIGURE 5.4: Per Capita Incomes in Zambia and the Congo, 1960-1995



The most direct measure of economic development, per capita gross domestic product, would suggest that the Republic of the Congo had much better prospects for a peaceful and long-lasting democratic transition. Figure 5.4 illustrates per capita GDP in these states before and after the transition in constant US dollars (2000). In Zambia's first years of independence, these economies were very similar. Each state had a per

²⁸ Clark focuses on the deleterious effects of these relationships, but concludes that they are not responsible for the collapse of Congolese democracy. See Clark, John F. 2002. "The Neo-Colonial Context of the Democratic Experiment of Congo-Brazzaville." *African Affairs* 101: 171-192.

capita GDP of around \$600. In 1965, the first year after Zambia's independence, the per capita GDP of the Congo (\$645) was only 6% higher than that of Zambia (\$607). This difference began to grow around the time that Sassou's PCT rose to power in the Congo. By 1970, Zambia's per capita GDP was 25% lower than the Congo's. The Congo was 50% wealthier than Zambia in 1973 and twice as wealthy as Zambia by 1980. In 1983, the per capita GDP of the Republic of the Congo (\$1361) was triple that of Zambia (\$421) for the first time, and this significant gap in income persists. Despite the crash in oil prices in the 1980s, the Congo remained at least three times as wealthy as Zambia from 1983 to 2007.²⁹

Of course, per capita measures of economic performance can hide variation in income inequality. Here again, a comparison of Zambia and the Congo would predict Zambia to have a much more turbulent transition. Reliable and consistent inequality data does not exist for these countries before their transitions, but area specialists emphasize some important differences between these states.³⁰ In the Congo, Sassou went to great lengths to please the masses when the oil market collapsed in the 1980s. Fearing an uprising, he insulated his population from the effects of the oil crash by increasing government spending and greatly expanding the size of the state bureaucracy, which rose from 3300 employees in 1960 to approximately 80,000 in 1990.³¹ The Congo specialist John Clark observes that so great was this inflation of state workers that it created a "bureaucratic bourgeoisie" during the transitional period that

²⁹ The lone exception is 1988, when per capita GDP in the Congo (\$1180) fell \$20 shy of triple that of Zambia (\$400).

³⁰ Inequality data are drawn from Deininger, Klaus and Lyn Squire. 1996. "A New Data Set Measuring Income Inequality." *World Bank Economic Review*, 10(3): 565–591.

³¹ Clark, John F. 1994. "Elections, Leadership, and Democracy in Congo." *Africa Today*, 41(3): 41–60.

dwarfed the middle class in most African countries. By the early 1990s, payroll for the Congo's state workers accounted for more than 20% of gross domestic product.³²

Zambia specialists recall the absence of a middle class in the early 1990s. The GINI inequality coefficient recorded for the early 1990s is between .45 and .55, which makes Zambia considerably more unequal than most Western, Asian, and African states. States with similarly high levels of inequality in this time period include Mexico, Venezuela, Chile, and South Africa (Deininger and Squire 1996). Writing in a 1992 issue of *Journal of Democracy*, Africanist Michael Bratton pointed to Zambia's economic woes as the most important threat to its democratic consolidation.³³

Natural Resources and Unearned Income

Much has been written about the damaging role played by natural resources, but this literature fails to explain the collapse of democracy in the Congo and the relative success of Zambia.³⁴ Both Zambia and the Republic of the Congo classify as *rentier* states; natural resources form the backbone of each state's economy, they provide each state's dominant source of foreign reserves, and the overall economic performance of each state is tied inseparably to prices on global commodity markets.

³² Clark, John F. 1997. "Petro-Politics in the Republic of Congo." *Journal of Democracy*, 8(3): 62–76.

³³ Bratton, Michael. 1992. "Zambia Starts Over." *Journal of Democracy*, 3(2): 81–94.

³⁴ Jensen, Nathan and Leonard Wantchekon. 2004. "Resource Wealth and Political Regimes in Africa." *Comparative Political Studies*, 37(7): 816–841, Oskarsson, Sven and Eric Ottosen. 2010. "Does Oil Still Hinder Democracy?" *Journal of Development Studies*, 46(6): 1067–1083, and Ross, Michael L. 2001. "Does Oil Hinder Democracy?" *World Politics*, 53(3): 325–361.

The Republic of the Congo is situated between the more well-known oil producing regions of Nigeria and Angola. Like its neighbors, the Congo's productive Atlantic shoreline has been the source of both revenue and conflict since the discovery of offshore reserves in the mid-1960s. Fortunately for Denis Sassou-Nguesso, the relatively late discovery of oil meant that the beginning of Congolese oil production coincided with the PCT's rise to power and offered it a new source of revenue with which it could buy off potential rivals.³⁵ Production quadrupled between 1971 and 1973, and the 1970s oil crisis resulted in rapidly increasing income for the new government.³⁶ It is no coincidence that Sassou's regime was at its strongest when oil prices were high in the early 1980s and only collapsed with the oil price at the end of the decade (Englebert and Ron, 2004).

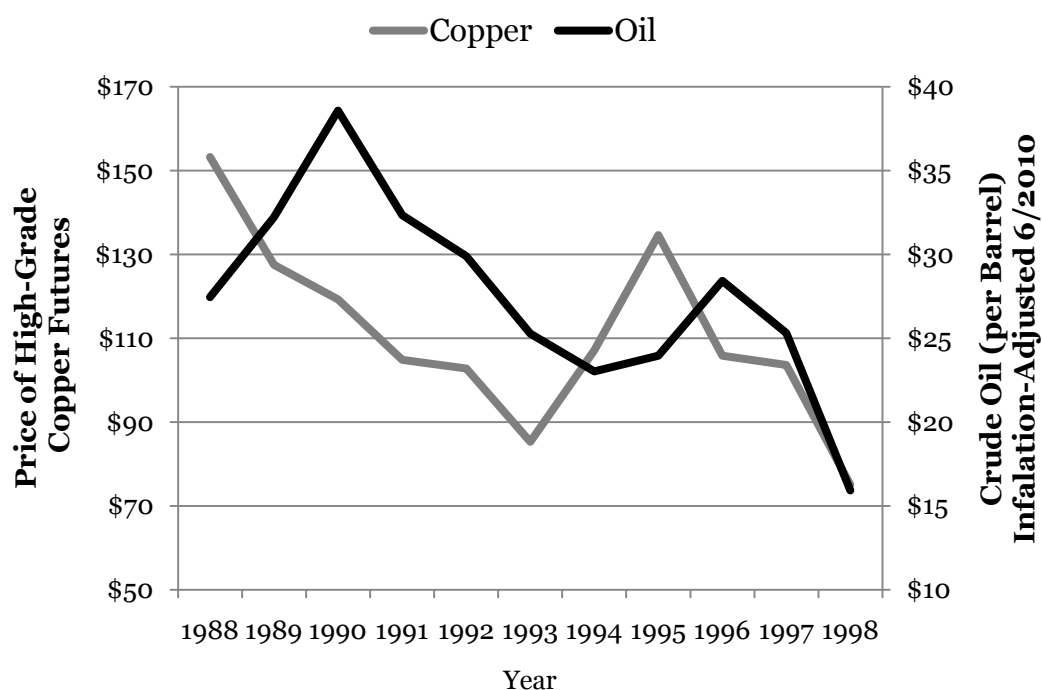
Experts on the relationship between natural resource wealth and political conflict would not be surprised by the turmoil that ensued in the Congo, but Zambia presents an intriguing puzzle. Zambia is not a major producer of the oil and diamonds that dominate the literature on natural resource economies, but it is among the world's leading producers of copper and cobalt, a valuable byproduct of copper mining. Together, these products account for more than 90% of Zambia's holdings of foreign exchange. In the early 1970s, copper alone accounted for more than a third of Zambia's gross domestic

³⁵ This argument is made specifically about Sassou by Clark (1994, 2002, 2004, 2005), but is made more generally in: Bueno de Mesquita, Bruce and Alastair Smith. 2010. "Regime Changes and Revolutionary Entrepreneurs." *American Political Science Review* 104(3): 446-466 and Smith, Benjamin B. 2004. "Oil Wealth and Regime Survival in the Developing World, 1960-1999." *American Journal of Political Science* 48(2): 232-246.

³⁶ See Clark (1997).

product (Mupimpila and van der Grijp, 1998).³⁷ Accordingly, Kaunda intensively nationalized copper corporations in the 1960s and 1970s and depended on these rents to maintain his regime.

FIGURE 5.5: Prices of Major Commodities, 1988-1998



Just as declining oil prices caused the Sassou regime to buckle in the Congo, a sustained fall in copper prices also weakened Kaunda before the democratic transitions of the early 1990s.³⁸ The following figure illustrates these trends in oil and copper prices from 1988 to 1998. Both regimes transitioned in the midst of a damaging drop in

³⁷ Copper no longer has such an important role in the Zambian economy, but this is because companies shifted to producing cobalt in the early 1990s as copper prices continued to drop on global commodities markets.

³⁸ This price shock produced widespread political protests in Zambia at the end of Kaunda's regime. In one famous instance, arsonists destroyed a monument to Kaunda in Lusaka (Bratton, 1992).

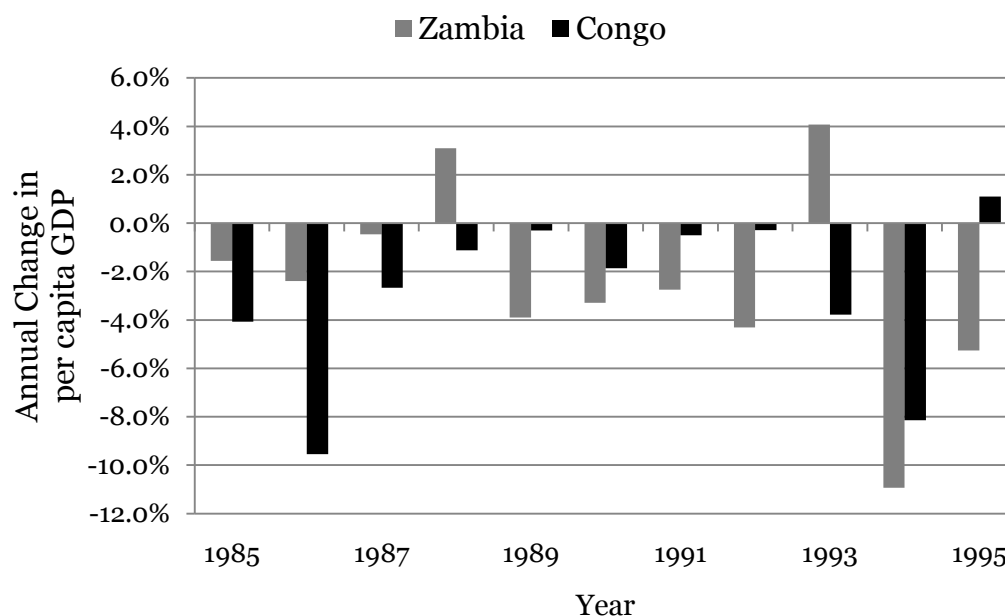
the price of their respective commodities, and both prices recovered some immediately after the democratic transitions. The similarity is striking. Natural resource economics clearly played a role in the fall of both regimes and the price recovery certainly helped both new democratic experiments, but why did Zambian democracy survive while the Congo's democracy faltered? Natural resources do not provide an adequate causal explanation.

Post-Transition Shocks

Finally, I turn to the role of sudden economic crises on the new democratic experiments in Zambia and the Congo. Both states suffered from the aforementioned price shocks on their primary sources of revenue, but did Zambia somehow insulate itself more successfully than the Congo? Zambia did have the advantage of shifting copper production to cobalt production when copper prices suffered, but Figure 5.6 shows that this did not sufficiently protect the economy in the tenuous years following Zambia's democratic transition.

In the worst years of the Congo's oil crisis, Congolese annual per capita economic growth fell far short of Zambia. Both Zambia and the Congo endured negative growth rates from 1985-1987, but these annual shortfalls were more than twice as great in the Congo. Still, it is unsurprising that these countries suffered from civil conflict. The mean annual per capita economic growth rate in Zambia for the five years before its transition (1986-1990) was -1.4%. In Congo, this five-year average growth rate before the transition (1987-1991) was -1.3%.

FIGURE 5.6: Annual Growth Rates in Zambia and the Congo, 1985-1995



Following the transitions, however, the Congo very clearly outperforms Zambia. This is an important point because Congo specialist John Clark points to the significance of the poor economy in the breakdown of Congolese democracy. The fact that Zambia suffered worse economic performance after the transition suggests this is not a sufficient condition for democratic breakdown. Throughout the early 1990s Zambia's annual per capita growth rate exceeds the Congo's only in 1993. Otherwise, the negative growth rates are more severe for Zambians throughout this period. From 1990-1995, the average annual per capita growth rate was an alarming -3.7%. In the Congo, it was only -2.2%. Given this superior performance, economic models of democratic survival would have forecasted Zambia to be the less successful new democracy.

In conclusion, economic factors do not help to explain the experiences of Zambia and the Congo. Here, many economic factors were evaluated and most would suggest

that Zambia - and not the Congo - would be the less successful state. Per capita gross domestic product was three times higher in the Congo before and after the transition, and the Congo had a large middle class while Zambia's level of inequality mirrored South Africa and Latin America. Both states depended on natural resources and both endured shocks to their commodity prices, but Zambia recovered even when the copper price did not. Finally, both states suffered negative per capita economic growth throughout and after the democratic transition, but Zambia's was more severe and sustained than was the Congo's. Despite all of the apparent economic advantages bestowed to the Republic of the Congo, its democracy fell to civil war while Zambian democracy survived.

Post-Transition Political Institutions

The transitions to democracy in the Congo and Zambia were remarkably similar, but the political institutions that followed these transitions were different in some important ways. Key differences in post-transition politics provide the most persuasive reason for the success of Zambian democracy relative to the Congolese experiment, and this is explicated further in this section.

Kenneth Kaunda succumbed to popular pressure in 1990 and agreed to constitutional revisions that would allow for a nation-wide multiparty election for the office of President in 1991. When he lost with a vote-share of only 24%, he passed power to the challenging Movement for Multiparty Democracy (MMD) and remained leader of UNIP. He would return to challenge for executive office again, but he never raised arms for his cause or posed an extra-institutional threat to the new party in power. For this,

Kaunda has received some praise for being only the second African leader to voluntarily and peacefully leave office due to the result of a multi-party election.³⁹

Facing similar pressure, Denis Sassou-Nguesso called for a national conference in 1991 and saw the opposition gain support. Sassou also lost the subsequent multiparty election, collecting only 17% of the vote in the first round of voting. Unlike Kaunda, he did not stay to run again another day. Instead, he left voluntarily for France, assembled a force of loyal mercenaries, and waited abroad for an opportunity to return to the Congo and take it by force. This moment came in the summer of 1997. The ensuing war ended the Congo's democratic experiment and returned Sassou to power.

Why didn't Kaunda use his power and influence to overthrow the new democratically-elected regime, and why did Sassou end democracy in the Congo? A persuasive answer to this question cannot be found in the colonial experiences, pre-transition politics, or economic conditions in these states. Rather, it is clear that the post-transition institutions shaped the strategies available to the deposed leaders and new ruling parties of Zambia and the Congo. In the case of the Congo, large and salient voting blocks empowered opposition parties in the new democracy and hindered the new ruling party's ability to co-opt opposition leaders. In Zambia, however, voting rules allowed the ruling party to dominate the legislature even as it attracted only a small share of the national vote. Opposition parties did not form into large blocs, and this prevented the emergence of a viable challenger to the new regime.

³⁹ The first of these leaders was Mathieu Kérékou of Benin, who stepped down only a few months before Kaunda.

Post-Transition Politics in the Congo

When the Republic of the Congo transitioned to democracy in 1992, it adopted the French dual executive system. The President of the Congo would be elected directly under a multiple-round system that would continue until a candidate acquired a majority of the vote. The legislature would be elected separately under proportional representation voting. Then, the President would appoint the Prime Minister, who would then be approved by the legislature. This institutional set-up encourages coalition-building among political parties. After the first round of presidential voting, candidates attempt to gain an endorsement from a rival so that one may clear the 50% threshold in the second round of voting. Because the President has the right to appoint the Prime Minister of the Congo, this endorsement can be repaid by appointment to this influential position.

In the 1992 presidential election, Denis Sassou-Nguesso (PCT) faced two major opponents. The first was Bernard Kolélas of the Congolese Movement for Democracy and Integral Development (MCDDI). Kolélas was a long-time opponent of the PCT and had previously been imprisoned for a coup attempt against Sassou's predecessor. Most of his support came from the populous region around Stanley Pool, including the capital city of Brazzaville. His long history of opposition to the PCT and his widespread support in the south (Sassou and most of the PCT elite were northerners) made him an especially salient threat to the Sassou regime.

The second major opponent was Pascal Lissouba of the Pan-African Union for Social Democracy (UPADS). Like Kolélas, he was another major rival to Sassou who had been involved in the tumultuous politics of the Congo in the 1970s. He served on the

Central Committee of the PCT and was imprisoned for the assassination of the party's leader while Sassou was the Director of Security for the party, so the history between Sassou and Lissouba was especially acerbic. Recognizing the threat posed by Lissouba, Sassou sent him into exile upon becoming president. Lissouba stayed in France for the duration of Sassou's regime (1979-1990), only returning after the party conference that allowed for multiparty elections. His strong region of support was in the extreme south of the country, including the oil-producing port city of Pointe-Noire.

After the first round of voting, Sassou won 16.87% of the overall vote, gaining majorities only in his sparsely-populated home region in the north of the country. Kolélas won more than 80% of the vote in the Brazzaville region, but failed to gain support elsewhere. His vote share of 20.32% placed him in second. Pascal Lissouba and the UPADS finished the first round of voting with a very strong lead of 35.89%, but he was still 15% shy of the majority he would need to become president.

Eight days later, the Congo held the second round of presidential voting. Fearing he would be left out of a coalition and a possible appointment to the position of prime minister, Sassou-Nguesso endorsed Lissouba and carried him to victory. PCT voters went heavily for Lissouba in the second round, granting him a majority of 61.32% over Kolélas' 38.68%. For his support, Lissouba promised to make his old rival prime minister, but he reneged after the election and the seeds for conflict were sown.⁴⁰ The

⁴⁰ Clark and Magnusson (2005) attribute this decision to poor leadership and these authors explicitly reject any structural explanation. However, Sassou would have presented a major threat to Lissouba if he were allowed to become the prime minister and African dual executive systems are especially fragile. See Clark, John F. and Bruce A. Magnusson. 2005. "Understanding Democratic Survival and Democratic Failure in Africa: Insights from the Divergent Democratic Experiments in Benin and Congo." *Comparative Studies in Society and History*, 47(3): 552–582.

PCT was awarded only three of the 28 cabinet positions in Lissouba's administration, so Sassou abandoned Lissouba and formed a strong opposition coalition with Kolélas.

The spring of 1993 brought elections for the National Assembly. Because proportional representation was used, no amount of gerrymandering could break the support for the opposition alliance between Sassou's PCT and Kolélas' MCDDI. The election resulted in only a very slight majority for Lissouba's UPADS and its allies; the UPADS received 65 seats of 125 seats, the PCT-MCDDI coalition received 56, and non-aligned parties earned only 4 positions in the national assembly.

Sassou did not immediately fight against the new Lissouba regime, for his position was relatively weak because he lacked support in the populous Pool and Brazzaville regions. Instead, he went to France and began assembling mercenaries while Lissouba struggled to establish control in the capital. Kolélas possessed his own loyal militias nicknamed the Ninjas, and from their stronghold in Brazzaville they prevented Lissouba from consolidating power over the state. It took Lissouba eight months to establish control over the capital. Lissouba and Kolélas signed a peace agreement in January of 1994 and Kolélas was made mayor of Brazzaville within the year.

Five years later, Sassou returned to the Congo to contest the 1997 presidential elections. After some violence between Sassou supporters and those of another candidate, Lissouba dispatched government forces to Sassou's compound to arrest him for disrupting the elections. Unfortunately for Lissouba, Sassou's Cobra militia was well-armed and Sassou was not going to be taken easily. The siege launched a four-month civil war that ended when Sassou was able to call on Angolan President José Eduardo dos Santos, a long-time Marxist ally. With the participation of Angolan forces, Lissouba's regime was soundly defeated and Sassou ended Congolese democracy.

In retrospect, two features of the Congo's young democracy helped to steer the new regime toward civil war and the eventual collapse of the Lissouba regime. The first feature was the power-sharing necessitated by the dual executive relationship between the offices of the President and Prime Minister. Lissouba needed Sassou's help to claim the presidency in the second round of voting, and the prime ministership was the obvious reward that Sassou expected for his allegiance. However, this position was too great a promise for Lissouba to make. With Sassou in the position of Prime Minister, he would have too much control over the National Assembly and could lead efforts to impeach Lissouba. Sassou had already demonstrated an adept skill for rising to executive office from a position of power within the government; this is exactly how he claimed the presidency as Minister of Security within the PCT in the 1970s. Had this dual executive structure not existed, Sassou might have been satisfied with a lesser position within the National Assembly or sub-state governments of the northern divisions.

A second structure that doomed the Lissouba regime was the proportional representation voting system. This encouraged coalition-building among the opposition and prevented the government from creating geographical single-member districts that would not lean so heavily toward opposition parties. Furthermore, because parties were running for the National Assembly rather than individual candidates, attention was bestowed upon the leaders of these parties rather than local officials. Thus, Kolélas and Sassou drew authenticity from leading their parties. Their important roles were not diminished by the popularity of candidates running in local elections. These institutional features favored oppositional organization and prevented Lissouba from manipulating the voting rules so as to consolidate his hold on power.

Post-Transition Politics in Zambia

Political institutions in post-transition Zambia were quite different from those found in the Republic of the Congo, and these differences had important implications for the survival of Zambia's young multi-party democracy. Like the Congo, Zambia had separate executive and legislative elections, but the electoral rules differed in a few important respects. First, Zambian democracy does not require a majority vote in presidential elections. This means that there is no multi-round voting or coalition-building between candidates struggling to gain 50% of the total vote. Instead, candidates can win with a plurality regardless of the size of the vote share they attract. Second, there is greater separation between the executive and legislative branches. There is no dual executive system and the president does not appoint the leader of the National Assembly. Third, legislative elections are conducted via first-past-the-post voting in single-member districts. Citizens vote for candidates rather than parties and a party must win the plurality of votes in a district to gain any representation in the legislature. Finally, Zambian electoral law calls for special elections when members of parliament change parties between elections. This interesting rule hinders coalition-building because any formal unification of parties would require each participating MP to contest his or her seat in a new election.

In the October 1991 election, Kenneth Kaunda's incumbent UNIP party was challenged by only one rival: Frederick Chiluba's Movement for Multiparty Democracy (MMD). Kaunda suffered an overwhelming defeat, gaining just 24.2% of the total vote. Because the MMD had already consolidated the opposition, Kaunda was in no position

to attempt to form coalitions and gain concessions. He abdicated and maintained his leadership over the UNIP. On the same day, National Assembly elections resulted in a very strong showing for Chiluba's MMD. Although the percentage of the vote share in the executive and legislative elections was very similar - the MMD gained 74.01% of the votes cast for the National Assembly - it won in 125 of 150 districts, resulting in a super-majority of 83.33% of the seats in the legislature.⁴¹

Chiluba used the strong MMD position in the legislature to marginalize Kaunda, his most important rival. With 5 of every 6 votes in the National Assembly, Chiluba easily pushed through legislation that eliminated Kaunda from contention in the 1996 presidential elections on the basis that his parents were not born in Zambia. UNIP, now lacking Kaunda and leaderless, did not want to offer the MMD legitimacy by running and losing, so they boycotted the 1996 election. This opened the door for a number of regional opposition parties. In the second elections after the transition (1996), Chiluba won with 72.6% of the vote with no opposition party gaining more than 13%.

The results of the 1996 National Assembly election are more telling. Without UNIP participation, the MMD did not face another national movement so it was the sole party to contest all of the districts. The regional opposition parties fared well in a few districts, but could only gain seats where they could achieve a plurality over the MMD. Consequently, the MMD won only 60.1% of the votes cast for the National Assembly but earned 131 of the 150 seats (87.33%).

In Chiluba's second term, he attempted to personalize the MMD party and manipulated elites both within and outside the party. To prevent a UNIP resurgence, he staged a coup against himself by having loyal troops take over a Lusaka radio station

⁴¹ For more on this historic election, see Bratton (1992).

and claiming to be members of UNIP. This “coup” was then used as a pretense to strip Kaunda of Zambian citizenship and force him to hand power of the party to his son, Tilyenji Kaunda.⁴² Chiluba also used his super-majority in the National Assembly to amend the constitution to allow him to run for a third term in 2001, but this caused fissures within the party and his efforts failed. The co-founder of the MMD, Anderson Mazoka, formed the rival United Party for National Development (UPND) while Chiluba’s vice president, General Christon Tembo, formed the Forum for Democracy and Development. It is important to note that these defectors from the MMD did not form a coalition against the ruling party. Rather, they posed their own independent challenges based in their respective home regions.⁴³

In 2001, Chiluba’s chosen successor, Levy Mwanawasa, very narrowly defeated these MMD defectors. The election resulted in 29.15% for Mwanawasa, 27.20% for Mazoka, 13.17% for Tembo, and 10.12% for Kaunda. Again, the significance of the first-past-the-post elections for the national assembly was seen in the fact that the MMD won only 28.02% of the votes but acquired 46% of the seats. A similar pattern occurred in the 2006 elections and the MMD is expected to maintain power in the upcoming elections in the autumn of 2011.⁴⁴

⁴² Additional stories of opposition intimidation by the MMD are documented in: Burnell, Peter. 2001. “The Party System and Party Politics in Zambia: Continuities Past, Present, and Future.” *African Affairs* 100: 239-263.

⁴³ See Burnell (2001) and Simon, David J. 2005. “Democracy Unrealized: Zambia’s Third Republic under Frederick Chiluba.” In: Peter VonDoepp and Leonardo Alfonso Villalón (Editors). *The Fate of Africa’s Democratic Experiments: Elites and Institutions*. Bloomington, IN: Indiana University Press. pp. 199–220.

⁴⁴ For further discussion of post-2000 Zambian elections, see Larmer, Miles and Alastair Fraser. 2007. “Of Cabbages and King Cobra: Populist Politics and Zambia’s 2006 Election.” *African Affairs* 106(425): 611-637.

So how did the Chiluba manage to stay in power without diverting government resources to buy off elites? The evidence here suggests that Zambia did not suffer an extra-institutional challenge despite the fact that it did not buy the support of elites because of very favorable electoral rules. First, the consolidation of the MMD before the transition meant that Chiluba had a mandate coming out of the 1991 transitional elections. Furthermore, because MMD was the strongest national party in 1991, the first-past-the-post voting procedures in the National Assembly elections magnified its power. With a 5/6 majority in Chiluba's first term, he was able to legitimately manipulate electoral rules to disqualify the only viable rival, Kenneth Kaunda's UNIP party. Lacking another party with a nation-wide presence, the MMD has continued to win more than its share of seats in the National Assembly in every election since the transition.⁴⁵

An important question remains: upon losing in 1991 and being barred from running in the 1996 election, why didn't Kaunda and UNIP militarize and pose an extra-institutional challenge to new, weak Zambian democracy. There are two persuasive answers to this question. First, because the MMD was able to unite UNIP's opponents before the election, Kaunda would have been warring against a party that had the support of 75% of Zambians in all regions of the country. This is a much different scenario than the one faced by Sassou in the Congo. Lissouba's regime was the first choice of only one third of Congolese, and these supporters were primarily concentrated outside the capital on the Congolese coast. Under these conditions, Sassou posed a more

⁴⁵ Reynolds, Andrew. 1999. *Electoral Systems and Democratization in Southern Africa*. Oxford: Oxford University Press.

viable threat to the Congo than Kaunda did to Zambia. Second, Zambia's first-past-the-post voting system allowed the MMD to maintain its mandate in the National Assembly and the leaders wisely used this influence to keep the opposition weak and divided. In Chiluba's tenure he was able to pre-empt UNIP by faking a UNIP coup attempt and arresting its influential leaders. He was also able to strip Kaunda of his citizenship. Because legislators could not change parties mid-term without having to re-contest their seats in special elections, a united opposition did not form and only weak regional parties challenged MMD domination.

Had political institutions in post-transition Zambia not granted the MMD so much power, it is unlikely that Chiluba could have so effectively maintained a super-majority and marginalized UNIP over its first decade in power. Kaunda might have more effectively formed political coalitions with factions of the opposition, just as Sassou was able to join forces with Kolélas to prevent a Lissouba super-majority in the Congolese National Assembly. Finally, the voting rules of Zambia's national assembly reduced the incentives for intra-MMD rivals to work together to fight MMD dominance. Voting rules favored strong regional dominance over a weaker nation-wide presence, so each defector from the MMD worked independently and locally rather than joining to form a cohesive organization that could pose a viable threat to the Zambian regime.⁴⁶

⁴⁶ Burnell (2001) comes to a similar conclusion, but attributes the fractionalization of the opposition to a Zambian political culture that emphasizes personalization of parties rather than cooperation and compromise. Because parties were also personalized in the Congo under Sassou, Lissouba, etc., this is not likely to explain the different outcomes of the Zambian and Congolese democratic experiments.

Conclusions

The leaders of weak inclusive political systems may face viable challenges from elites wishing to return their countries to more exclusive forms of government. The leaders of these regimes respond to the threat posed by these elites by slowing the redistribution of government resources via public goods provision and offering pacts and special favors to those who might threaten their regimes. The emergence of “pacted” democracies has been recognized in places like Chile, Venezuela, and Spain, but the quantitative analysis presented in Chapter 4 suggests that there are other ways for democracies to insulate themselves from extra-institutional threats. Inclusive regimes can sometimes avoid destabilizing challenges without reducing public spending and making economic pacts with elites. This chapter set out to uncover these alternate strategies.

The democratic experience of the Republic of the Congo constitutes an “on-the-line” case where the leader of a weak inclusive regime failed to make pacts with elites and suffered the predicted challenges from those elites. Lissouba reneged on an agreement with Sassou and only brought temporary peace to the Congo by granting Kolélas the office of Mayor of Brazzaville and the subsequent economic perks associated with the position. A close examination of this case suggests that Lissouba resisted a pact with Sassou because of the dual executive system and a proportional representation voting system that gave him a relatively weak presence in the National Assembly. Sassou would have accepted nothing less than the office of Prime Minister, and this would have granted him too much power over Lissouba. Lissouba’s slim plurality prevented him from manipulating electoral rules as the MMD did in Zambia.

In Zambia, the MMD allocated high levels of government resources toward public goods provision, yet the marginalized elites did not fight to return the country to exclusive autocracy. This “off-the-line” case with an unexpected outcome offers a few mechanisms by which the leaders of weak inclusive regimes can stabilize their states without allocating money toward elite rents. Chiluba did not buy off Kaunda because his post-election political position was strong enough to allow him to eliminate the threat posed by Kenneth Kaunda and the UNIP. The MMD acquired the super-majority it needed to remove the threat posed by Kaunda because (1) Kaunda’s opponents united around the MMD and gave it three-quarters of the vote in the 1991 elections and (2) the National Assembly’s electoral rules ensured that the MMD would dominate the legislature at a level that far exceeded the number of votes it received. These institutional voting procedures underlie the MMD’s ability to invalidate Kaunda’s candidacy, strip Kaunda of his citizenship, and pose fake coups that were used to preempt extra-institutional threats from UNIP leaders. Because UNIP was the only other national political party, the small MMD offshoots that emerged before the 2001 elections did not pose a viable threat.

Special deals with elites are one strategy that the leaders of weak inclusive regimes can use to buy some time for their regimes to consolidate power. However, these leaders need not divert money away from the public goods expenditures demanded by their constituencies to insulate their regimes. As we see in the Congo, some electoral institutions may leave the leader in a weak bargaining position so that elite pacts will be ineffective. The dual executive system forced Lissouba’s hand and made a pact with Sassou too dangerous. This might explain Lissouba’s resistance to pacting with Sassou to avoid a challenge. Chiluba’s rule over Zambia shows that leaders

do not need to buy off challengers if their institutions give them enough power to persecute and effectively marginalize their opponents. While most weak inclusive regimes do reduce public goods spending to buy off elites (Chapter 3), this is not a necessary condition for stability in these regimes.

This conclusion finds some support in the large body of research on the success rates of various types of transitional democracies. Juan Linz, perhaps the staunchest opponent of presidential systems, argues that while parliamentary systems are generally more durable than presidential systems, the least successful democratic governments merge presidential and parliamentary features.⁴⁷ These cases support this conclusion. Zambia was able to avoid the pitfalls faced by presidential systems, such as divided government and deadlock, but it proved to be more successful than the Congolese dual executive presidential-parliamentary system. Still, the MMD's success may be running its course in Zambia. If the decline in vote share continues, the MMD's inability to maintain a majority in the legislature could condemn Zambia to the political unrest that typically brings down presidential regimes.⁴⁸

⁴⁷ See Linz, Juan J. 1978. *The Breakdown of Democratic Regimes: Europe*. Baltimore: John Hopkins University Press, Linz, Juan J. 1990. "The Perils of Presidentialism." *Journal of Democracy*, 1(1): 51-69, and Linz, Juan J. and Alfred Stepan. 1996. *Problems of Democratic Transition and Consolidation: Southern Europe, South American, and Post-Communist Europe*. Baltimore: John Hopkins University Press. For consenting opinions on the merits of parliamentary rule, see Lijphart, Arend. 1984. *Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries*. New Haven: Yale University Press, Lijphart, Arend. 1991. "Constitutional Choices for New Democracies." *Journal of Democracy* 2(1): 72-84, and Lijphart, Arend. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven: Yale University Press.

⁴⁸ Also see Mainwaring, Scott. 1993. "Presidentialism, Multipartism, and Democracy: The Difficult Combination." *Comparative Political Studies* 26(1): 198-228, Diskin, Abraham, Hanna Diskin, and Reuven Y. Hazan. 2005. "Why Democracies Collapse: The Reasons for Democratic Failure and Success." *International Political Science Review* 26(3): 291-309, and Cheibub, José Antonio. 2007. *Presidentialism, Parliamentarism, and Democracy*. New York: Cambridge University Press.

In future research, the insights of this model can be merged with this research on institutional constraints under various forms of democratic government. This adds some necessary complexity to the relationship between regime stability and regime spending, but it also allows for a promising line of research on strategies leaders can use to stabilize new democracies without sacrificing the public goods provision demanded by their large constituencies.

CONCLUSION

“One attains [power] by help of popular favor or by the favor of the aristocracy. For in every city these two opposite parties are to be found, arising from the desire of the populace to avoid the oppression of the great, and the desire of the great to command and oppress the people.”

- Niccòlo Machiavelli

With these words, Machiavelli warned his prince of two great threats to political survival: the masses, who prefer large inclusive governments, and the elites, who prefer to maintain their relative wealth over the masses. To prolong leadership tenure, the prince must address both of these contradictory interests. The prince should do this by meeting these groups' needs according to the power they possess. When the masses are strong enough to threaten the prince, the prince must meet their demands. When the elites can depose the prince, he must meet their needs. Thus, Machiavelli's logic of political survival dictates that the prince use his resources to please those with the power to remove him.

The contemporary literature on regime stability and public goods provision remains grounded on this basic logic of political survival, yet one element of Machiavelli's argument is largely forgotten. Whereas Machiavelli was concerned with extra-institutional threats to power, such as coup and revolution, modern scholars focus almost exclusively on threats to political power that emerge within institutional processes. This difference has important implications for the study of government

spending and regime stability. If threats to power emerge within institutions, then the government should be expected to allocate resources so as to please those with the institutional power to replace the leader. However, if threats emerge from outside institutions, as Machiavelli warns, then the power and motivation of those who would use force to take down the regime must also create incentives for government spending.

This dissertation seeks to incorporate Machiavelli's concern about extra-institutional threats to power with the modern literature that is overwhelmingly focused on institutional mechanisms for executive replacement. Thus, I hope to offer a more complete and more accurate account of the decisions that link regime stability to government spending. By considering both institutional and extra-institutional pressures on leadership tenure, this dissertation advances the study of political survival and provides a more accurate account of variation in regime spending. More importantly, it offers the leaders of weak regimes some strategies that they might use to simultaneously address both extra-institutional and institutional threats. With strategic government spending, leaders can lower the incidence of coup and civil war, thus reducing the anarchic conditions that threaten global peace and prosperity.

Contributions

This project results in a number of contribution, and some speak directly to the literatures addressed here while others have broader applications for political science research. The first broader contribution of this dissertation is its attention to what I call *rational choice extra-institutionalism*. Much research has adopted the rational choice institutionalist response to explain a variety of behaviors. This has been a fruitful

literature, but it suffers an important weakness. Agents should only be expected to respond to the incentives provided by institutional structures to the extent that there institutions characterize the entire environment of actors involved. In the context of the work on government spending, the rational choice institutionalist approach allowed Bueno de Mesquita and coauthors (2003), Lake and Baum (2001), and many others to begin to explain variation in social welfare and government spending. But leaders environments are not limited to institutional actors. To accurately account for incentives, and therefore behavior, then we must consider extra-institutional conditions where these are likely to affect political decisions.¹

Second, this dissertation departed from most previous research by co-considering coup and civil war rather than studying them as separate phenomena. I think there are some important reasons for this approach. Perhaps the most important of these reasons is the fact that coup and civil war have similar ends and similar causes. The difference in these events is one in tactics, and these tactics are often beyond the control of the initiators. As we saw in the Republic of the Congo, wars often begin as coups that do not go as planned. The December 2010 assassination of the governor of Punjab, Pakistan demonstrates that tactical plots against leaders are sometimes inseparable from the mass conflict in which the plot is embedded. Furthermore, the motives of instigators are not easily distinguishable from those of rebel leaders. Coups sometimes benefit the elites, but they are often executed on behalf of the masses when elites act against the interests of the population. Civil wars can be inspired by demands for greater

¹ For an excellent discussion of the state of rational choice institutionalism in political science research, see Weingast, Barry. 2002. "Rational-Choice Institutionalism." In: Ira Katznelson and Helen V. Milner (Eds.). *Political Science: The State of the Discipline*. New York: WW Norton and Company. pp. 660-692.

redistribution of wealth and regional equality, but leaders are sometimes interested in preserving existing inequality and slowing redistribution of wealth.² Perhaps most importantly, leaders must consider threats of coup and civil war simultaneously. Future research should explore about how leaders balance different kinds of threats simultaneously instead of examining one threat without considering how leaders' efforts reflect a complex environment that poses many threats to political survival.

Third, the dissertation makes an important contribution to the literature on public welfare by identifying an important predictor of public goods provision. Regime inclusiveness does have an effect on public and private goods provision, but this effect is dependent upon the strength of the regime in question. Strong regimes spend according to institutional incentives; the relationship between inclusiveness and public goods provision is positive. But among weak regimes, extra-institutional threats cause all types of regimes to balance the wants of the institutional audience with those of viable challengers. Thus, the effect of regime type becomes unclear. All regimes must moderate spending as they attempt to placate their most likely challengers.

Fourth, this research suggests some new strategies for international actors who interact with the leaders of struggling regimes. The leaders of weak inclusive regimes should be expected to be corrupt until their regimes strengthen. Corruption is a survival strategy and says little about the absence of democratic norms in a newly-reformed country. Leaders like Hamid Karzai need less criticism for their corruption and more development aid. As Afghan democracy consolidates, Karzai will not be threatened to

² For an example of the former, consider the long war in Sudan between the relatively-deprived south and the much wealthier northern government. An example of the latter can be found in Sri Lanka where the wealthier Tamil population looked to end redistribution toward the minority Sinhalese by declaring independence from the Sinhalese side of the island.

the same extent that he is now. Relieved of this extra-institutional pressure, Afghan leaders will be able to spend more on their voters. Similarly, benevolent dictators will only remain benevolent while their regimes are vulnerable. If international actors are interested in the welfare of citizens living under dictatorship, then they must keep the regime vulnerable by vocalizing support for population, providing diaspora support, and keeping the cost of rebellion low enough for the masses to make credible threats against the regime.

Fifth, the finding presented in Chapter 4 has major implications for our understanding of regime consolidation in non-democratic regimes. By providing public goods, dictators can buy the temporary support of the masses while their regimes consolidate. Suharto, Saddam, and others show that non-democratic leaders can spend on public goods while placing allies in power and alienating potential threats. Once regimes are insulated, dictators are free to concentrate the wealth of the state on the exclusive group of regime insiders.

Finally, the comparison of Zambia and the Republic of the Congo draws attention to the institutional design of new inclusive regimes. If institutions force newly-elected parties to make costly compromises with viable challengers, then the leaders of these regimes may risk a challenge by refusing to empower their rivals. The dual executive system in the Congo illustrates this danger. The existence of the position of prime minister effectively eliminated the chance of a compromise between Lissouba and Sassou because Sassou's right to the position posed too great a threat to Lissouba. Conversely, the first-past-the-post system allowed Zambia's Movement for Multiparty Democracy to earn shares of the National Assembly that were far greater than its share of the nation-wide vote. This super-majority enabled the MMD to keep the opposition

divided so that no viable threat could emerge. This allowed Zambia to spend more on public goods and ensured that the regime would not have to divert resources toward purchasing the support of UNIP elites.

Limitations and Future Research

This project also faced some limitations, and working around these limitations is vital to the future of this research program. Three specific limitations suggest avenues for future research. The first limitation of this study is the lack of attention given to voluntary transitions. While I maintain that voluntary transitions are often preemptions of the extra-institutional challenges studied here, more research should be done on when leaders will preempt a challenge by changing the structure of the regime (rather than only changing government spending). The decision to transition is thoroughly examined elsewhere, but these other works do not ask why leaders would change their institutions rather than change their spending habits. Synthesis of the insights generated here with those reported in the transition literature could shed light on this important question and allow us to better predict spending, voluntary transition, and extra-institutional challenges.

Second, the distribution of government resources concerns not only spending, but also the collection of revenue. If these hypotheses are correct, then regime strength and regime inclusiveness should also interact to predict tax rates. With improved data (especially for non-democratic regimes) this research should be able to test a few implications. Tax rates should be lower in weaker inclusive regimes and higher in stronger inclusive regimes. Similarly, we should observe more taxes on the wealthy in

weak exclusive states. Taxes on the wealthy should diminish as these regimes strengthen.

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